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Cilindri pneumatici e oleopneumatici
Pneumatic and oil-pneumatic cylinders

Catalogo generale **edizione 2012**
General catalogue ***2012 edition***

PROGRAMMA DI PRODUZIONE - *PRODUCTION PROGRAM*

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TABELLA FORZE CILINDRI
CYLINDERS FORCE TABLE

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ALESAGGIO *BORE*	**F** per 1 bar in spinta (Kg.) *F for 1 bar in thrust (Kg)*	ø stelo *ø piston rod*	**F** per 1 bar in trazione (Kg.) *F for1 bar in traction (Kg)*	Serie *Series*
8	0,5	4	0,37	350
10	0,78	4	0,65	350
12	1,1	6	0,82	350 - 360
16	2	6	1,7	350
		8	1,5	360
20	3,1	8	2,6	300 - 350
		10	2,3	360
25	4,9	10	4,1	350
		12	3,7	360
27	5,7	10	4,9	300
32	8	N°2 8	7	326
		12	6,8	310 - 320 - 380
		16	6	360
35	9,6	12	8,4	300
40	12,6	N°2 10	11	326
		12	11,4	300 - 380
		16	10,6	320 - 360
		18	10	310
50	19,6	N°2 12	17,3	326
		14	18,1	300
		16	17,6	340 - 380
		18	17,1	310
		20	16,5	360 - 320
	18,4	35	10	341
60	25,2	18	25,7	300
63	31,2	16	29,2	380
		N°2 16	27,2	326
		20	28	320 - 360
		22	27,4	310 - 340
	30	35	21,6	341
70	38,4	20	35,2	300
80	50,2	20	47,1	380
		N°2 20	43,9	326
		22	46,4	310 - 340
		25	45,3	320 - 360
	49	35	40,6	341
85	56,7	22	52,9	300
100	78,5	N°2 20	72,2	326
		24	74	300
		25	73,5	320 - 380
		30	71,5	360 - 310
	77	35	68,9	341
125	122,7	30	115,7	310
		32	114,7	320
160	201	40	188,5	310
200	314	40	301,5	310

CALCOLO DEL CONSUMO D'ARIA DI UN CILINDRO
CALCULATION OF AIR CONSUMPTION FOR A CYLINDER

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TABELLA DEI CONSUMI D'ARIA / *AIR CONSUMPTION TABLE*

q = consumo per cm. di corsa / *consumption per stroke cm (Nl)*

ALESAGGIO	**PRESSIONE / *PRESSURE*** (bar)											
BORE	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
8	0,001	0,0015	0,002	0,0025	0,003	0,0035	0,004	0,0045	0,005	0,0055	-	-
10	0,0015	0,0023	0,0031	0,0033	0,0047	0,0055	0,0063	0,007	0,0078	0,0085	-	-
12	0,0022	0,0033	0,0044	0,0055	0,0066	0,0077	0,0088	0,0099	0,011	0,012	-	-
16	0,004	0,006	0,008	0,01	0,012	0,014	0,016	0,018	0,020	0,022	-	-
20	0,006	0,009	0,012	0,0155	0,0185	0,0215	0,025	0,028	0,031	0,034	0,037	0,040
25	0,01	0,014	0,019	0,024	0,029	0,033	0,038	0,043	0,048	0,052	-	-
27	0,0115	0,017	0,023	0,0285	0,034	0,04	0,046	0,052	0,057	0,063	0,068	0,074
32	0,016	0,024	0,032	0,04	0,047	0,056	0,063	0,071	0,079	0,087	-	-
35	0,019	0,029	0,038	0,048	0,058	0,067	0,078	0,086	0,096	0,105	0,115	0,125
40	0,025	0,037	0,049	0,061	0,073	0,085	0,097	0,11	0,122	0,135	0,146	0,157
50	0,039	0,058	0,077	0,096	0,115	0,134	0,153	0,172	0,191	0,21	0,229	0,248
60	0,056	0,085	0,113	0,14	0,169	0,197	0,225	0,254	0,28	0,31	0,34	0,367
63	0,063	0,094	0,124	0,155	0,186	0,217	0,247	0,277	0,31	0,341	-	-
70	0,077	0,115	0,154	0,192	0,23	0,268	0,307	0,345	0,385	0,422	0,46	0,5
80	0,102	0,152	0,202	0,252	0,302	0,353	0,403	0,452	0,503	0,553	-	-
85	0,113	0,17	0,227	0,28	0,34	0,397	0,453	0,51	0,57	0,624	0,68	0,737
100	0,155	0,231	0,307	0,383	0,459	0,535	0,611	0,687	0,763	0,839	0,915	0,991
125	0,247	0,369	0,491	0,612	0,734	0,856	0,977	1,099	1,22	1,342	-	-
160	0,408	0,609	0,809	1,01	1,211	1,411	1,612	1,812	2, 012	2,213	-	-
200	0,618	0,923	1,227	1,531	1,835	2,139	2,443	2,747	3,052	3,356	-	-

N.B. Nel calcolare i consumi d'aria dei cilindri a doppio effetto abbiamo ritenuto trascurabile il minor volume della camera anteriore dovuto allo stelo. Otterremo quindi dei consumi teorici approssimati per eccesso.
N.B. *In calculating air consumption in double-acting cylinders we have considered the small volume of the front chamber due to the piston rod, as irrelevant. We will thus obtain approximate technical consumption in excess.*

CILINDRO A SEMPLICE EFFETTO
SINGLE ACTING CYLINDER

$Q = S \times n \times q =$ (Nl/min)

CILINDRO A DOPPIO EFFETTO
DOUBLE-ACTING CYLINDER

$Q = 2 \times S \times n \times q =$ (Nl/min)

dove:
Q = consumo totale / *overall consumption*(Nl/min)
q = consumo per cm. di corsa / *consumption per stroke cm* (Nl) (vedi tabella / *see table**)***
S = corsa cilindro / *cylinder stroke* (cm)
n = numero di cicli al minuto / *number of cycles per minute*

SIMBOLOGIA PNEUMATICA
PNEUMATIC SYMBOLS

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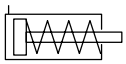
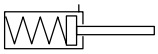
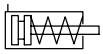
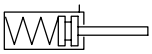
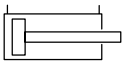
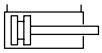
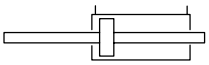
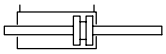
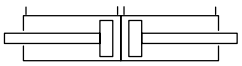
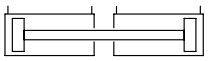
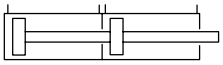
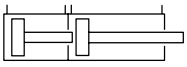
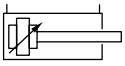
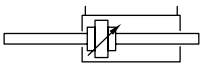
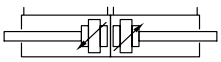
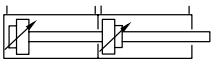
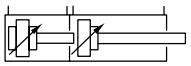
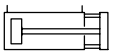
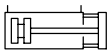
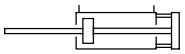
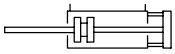
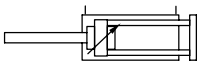
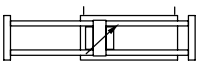
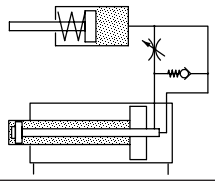
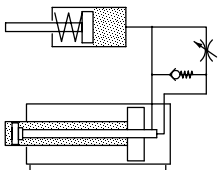
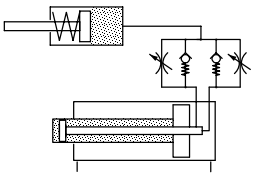
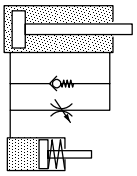
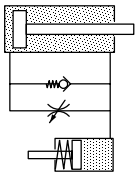
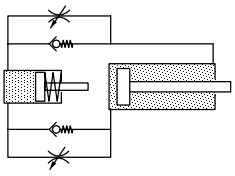
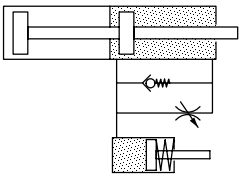
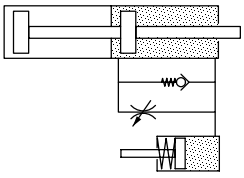
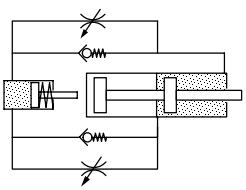
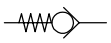
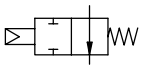
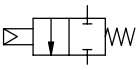
CILINDRI / CYLINDER	
Cilindro semplice effetto, stelo retratto, ritorno a molla *Single acting cylinder, retracted piston rod, spring return*	
Cilindro semplice effetto, stelo esteso, ritorno a molla *Single acting cylinder, extended piston rod, spring return*	
Cilindro semplice effetto, stelo retratto, ritorno a molla con pistone magnetico *Single acting cylinder, retracted piston rod, spring return with magnetic piston*	
Cilindro semplice effetto, stelo esteso, ritorno a molla con pistone magnetico *Single acting cylinder, extended piston rod, spring return with magnetic piston*	
Cilindro doppio effetto, stelo semplice *Double acting cylinder, simple piston rod*	
Cilindro doppio effetto, stelo semplice con pistone magnetico *Double acting cylinder, simple piston rod with magnetic piston*	
Cilindro doppio effetto, stelo passante *Double acting cylinder, double piston rod*	
Cilindro doppio effetto, stelo passante con pistone magnetico *Double acting cylinder, double piston rod with magnetic piston*	
Cilindro doppio (steli contrapposti) *Double cylinder (opposite piston rods)*	
Cilindro doppio (stelo unico) *Double cylinder (single piston rod)*	
Cilindro tandem *Tandem cylinder*	
Cilindro doppia stazione *Double station cylinder*	
Cilindro doppio effetto con deceleratore anteriore e posteriore regolabile *Double acting cylinder with adjustable front and rear decelerator*	
Cilindro doppio effetto, stelo passante con deceleratore anteriore e posteriore regolabile *Double acting cylinder, double piston rod with adjustable front and rear decelerator*	

Cilindro doppio con deceleratore anteriore e posteriore regolabile *Double acting cylinder with adjustable front and rear decelerator*	
Cilindro tandem con deceleratore anteriore e posteriore regolabile *Tandem cylinder with adjustable front and rear decelerator*	
Cilindro doppia stazione con deceleratore anteriore e posteriore regolabile *Double station cylinder with adjustable front and rear decelerator*	
Cilindro doppio effetto antirotante *Double acting cylinder, non-rotating*	
Cilindro doppio effetto, antirotante con pistone magnetico *Double acting cylinder, non-rotating with magnetic piston*	
Cilindro doppio effetto, stelo passante antirotante *Double acting cylinder non-rotating, double piston rod*	
Cilindro doppio effetto, stelo passante antirotante con pistone magnetico *Double acting cylinder, non-rotating double piston rod with magnetic piston*	
Cilindro doppio effetto, steli gemellari, deceleratore anteriore e posteriore regolabile *Double acting cylinder, twin piston rods, adjustable front and rear decelerator*	
Cilindro doppio effetto, stelo passante e steli gemellari, deceleratore anteriore e posteriore regolabile *Double acting cylinder, through and twin piston rods, adjustable front and rear decelerator*	
Cilindro doppio effetto, steli gemellari passanti, deceleratore anteriore e posteriore regolabile *Double acting cylinder, through twin piston rods, adjustable front and rear decelerator*	
Attuatore rotante *Rotating actuator*	

OLEOPNEUMATICA / OIL-PNEUMATIC	
Cilindro oleopneumatico con regolazione in uscita. *Oil-pneumatic cylinder with out-stroke regulation*	
Cilindro oleopneumatico con regolazione in entrata. *Oil-pneumatic cylinder with in-stroke regulation*	
Cilindro oleopneumatico con doppia regolazione. *Oil-pneumatic cylinder with double regulation*	
Regolatore idraulico con regolazione in uscita. *Hydraulic regulator with out-stroke regulation*	
Regolatore idraulico con regolazione in entrata. *Hydraulic regulator with in-stroke regulation*	
Regolatore idraulico con doppia regolazione. *Hydraulic regulator with double regulation*	
Unità oleopneumatica con regolazione in uscita. *Oil-pneumatic unit with out-stroke regulation*	
Unità oleopneumatica con regolazione in entrata. *Oil-pneumatic unit with in-stroke regulation*	
Unità oleopneumatica con doppia regolazione. *Oil-pneumatic unit with double regulation*	

VARIE / VARIOUS	
Capacità *Capacity*	
Valvola unidirezionale *Non-return valve*	
Regolatore di flusso *Flow regulator*	
Valvola 2 vie / 2 posizioni ad azionamento pneumatico normalmente aperta *2-way /2 position valve normally open with pneumatic functioning*	
Valvola 2 vie / 2 posizioni ad azionamento pneumatico normalmente chiusa *2-way /2 position valve normally closed with pneumatic functioning*	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38000
050100
diottalevi
38001
050100

CARATTERISTICHE TECNICHE

alesaggi ..... - 32 40 50 63 80 100
versioni ..... - doppio effetto
- doppio effetto antirotante
- semplice effetto stelo retratto
- semplice effetto stelo esteso
- stelo passante doppio effetto
- cilindro doppio
- moltiplicatore di forza
- stazioni multiple
- Tutti i cilindri sono standard magnetici

fluido..... - aria filtrata con o senza lubrificazione
pressione max..... - 10 bar
temperatura..... - 0°C ÷ 80°C (-20°C con aria secca)
camicia ..... - lega di alluminio ossidato duro
stelo ..... - acciaio C 45 cromato o inox
pistone..... - in alluminio
boccola guida ..... - autolubrificante
testate ..... - in alluminio ossidato
guarnizioni ..... - in gomma NBR autolubrificante e poliuretano
fissaggi..... - a norme ISO 15552

CORSE STANDARD DISPONIBILI PER DOPPIO EFFETTO

5 - 10 - 15 - 20 - 25 - 30 - 35 - 40 - 45 - 50 - 55 - 60 - 65 - 70 - 75 - 80

CORSE MAX CONSIGLIATE PER DOPPIO EFFETTO

ø32 - ø40: 300mm ø50 - ø63: 400mm ø80 - ø100: 500mm

CORSE STANDARD PER SEMPLICE EFFETTO

ø32 - ø100: 5 - 10 - 15 - 20 - 25

LEGENDA CODICI

□. □ .□ . Ø .corsa

380 - stelo semplice
381 - stelo passante
382 - stelo passante forato
383 - antirotante stelo semplice
384 - antirotante stelo passante
385 - cilindro doppio steli contrapposti
386 - cilindro doppio stelo unico
387 - moltiplicatore di forza (tandem)
388 - stazioni multiple

0 - D.E.
1 - S.E. stelo retratto
2 - S.E. stelo esteso

0 - stelo cromato filetto femmina
1 - stelo cromato filetto maschio
2 - stelo inox filetto femmina
3 - stelo inox filetto maschio

TECHNICAL CHARACTERISTICS

bores ..... *- 32 40 50 63 80 100*
versions ..... *- double acting*
- non-rotating double acting
- single acting retracted piston rod
- single acting extended piston rod
- double acting double ended piston rod
- double cylinder
- high power cylinder
- multiposition cylinder
- All cylinder are standard magnetic

fluid ..... *- filtered air with or without lubrication*
max. pressure..... *- 10 bar*
temperature ..... *- 0°C ÷ 80°C (-20°C with dry air)*
tube ..... *- hard oxidised aluminium alloy*
piston rod ..... *- chromed steel C 45 or stainless steel*
piston ..... *- aluminium*
guide bushing ..... *- self-lubricating*
heads ..... *- oxidised aluminium*
seals ..... *- NBR rubber self lubricating and polyurethane*
fixing ..... *- the same of cylinders ISO 15552*

STANDARD STROKES AVAILABLE FOR DOUBLE ACTING

5 - 10 - 15 - 20 - 25 - 30 - 35 - 40 - 45 - 50 - 55 - 60 - 65 - 70 - 75 - 80

MAX RECOMMENDED STROKES FOR DOUBLE ACTING

ø32 - ø40: 300mm *ø50 - ø63: 400mm* *ø80 - ø100: 500mm*

STANDARD STROKES FOR SINGLE ACTING

ø32 - ø100: 5 - 10 - 15 - 20 - 25

CODE LEGEND

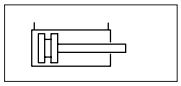
□ . □ . □ . Ø .stroke

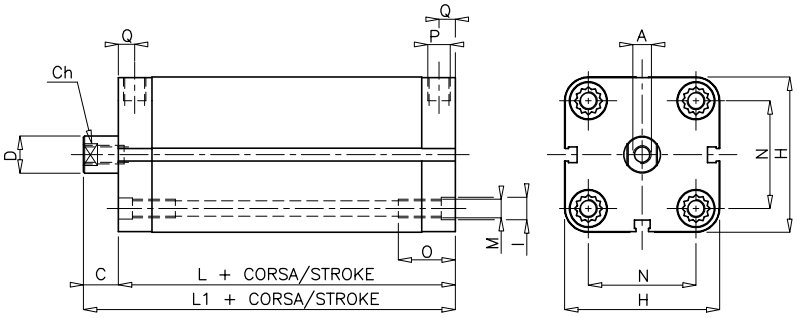
380 - simple piston rod
381 - double piston rod
382 - perforated double piston rod
383 - non-rotating simple piston rod
384 - non-rotating double piston rod
385 - double cylinder opposite piston rods
386 - double cylinder single piston rod
387 - high-power cylinder (tandem)
388 - multiposition cylinder

0 - D.A.
1 - S.A. retracted piston rod
2 - S.A. extended piston rod

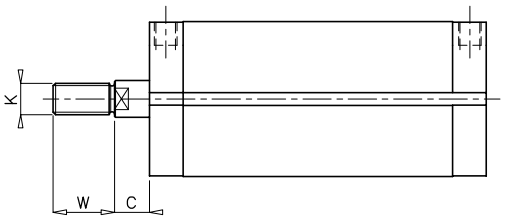
0 - chromed piston rod with female thread
1 - chromed piston rod with male thread
2 - stainless steel piston rod with female thread
3 - stainless steel piston rod with male thread

Cilindri compatti
Compact cylinders

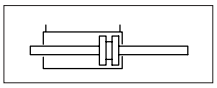


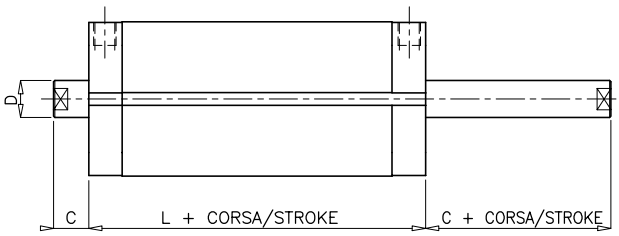


VERSIONE STANDARD codice. **380.0.0** Ø.corsa
STANDARD VERSION *code.* ***380.0.0*** *Ø.stroke*



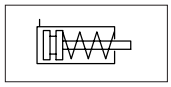
VERSIONE STANDARD CON FILETTO MASCHIO codice. **380.0.1** Ø.corsa
STANDARD VERSION WITH MALE THREAD *code.* ***380.0.1*** *Ø.stroke*

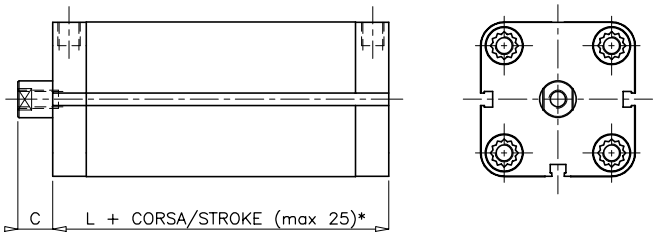




STELO PASSANTE codice. **381.0.0** Ø.corsa
DOUBLE PISTON ROD *code.* ***381.0.0*** *Ø.stroke*

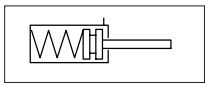
ALESAGGIO *BORE*	A	C	Ch	D	H	I	L	L1	M	N	O	P	Q	W	K
ø32	M6x12	6	10	12	50	9	44,5	50,5	M6	32,5	24	G 1/8"	7,5	22	M10x1,25
ø40	M6x12	6,5	10	12	56	9	45,5	52	M6	38	24	G 1/8"	7,5	22	M10x1,25
ø50	M8x12	7,5	13	16	67	11	45,5	53	M8	46,5	24,5	G 1/8"	7,5	24	M12x1,25
ø63	M8x12	7,5	13	16	77	11	50	57,5	M8	56,5	24,5	G 1/8"	7,5	24	M12x1,25
ø80	M10x16	8	17	20	96	14	56	64	M10	72	32	G 1/8"	8,5	32	M16x1,5
ø100	M12x20	10	22	25	115	14	66,5	76,5	M10	89	32	G 1/4"	9,5	40	M20x1,5

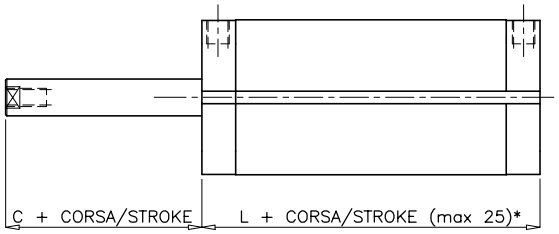




SEMPLICE EFFETTO STELO RETRATTO codice. **380.1.0** Ø.corsa
SINGLE ACTING RETRACTED PISTON ROD *code.* ***380.1.0*** *Ø.stroke*

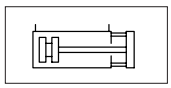
* Corse superiori su richiesta / *Longer strokes on request*

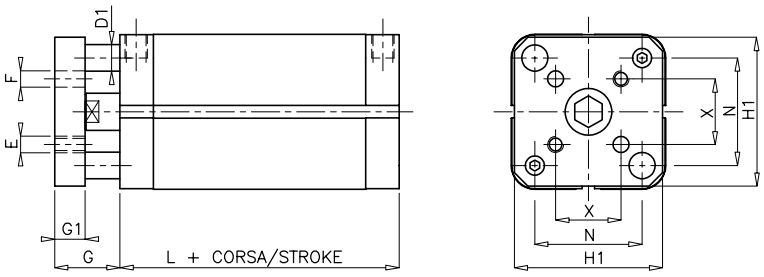




SEMPLICE EFFETTO STELO ESTESO codice. **380.2.0** Ø.corsa
SINGLE ACTING EXTENDED PISTON ROD *code.* ***380.2.0*** *Ø.stroke*

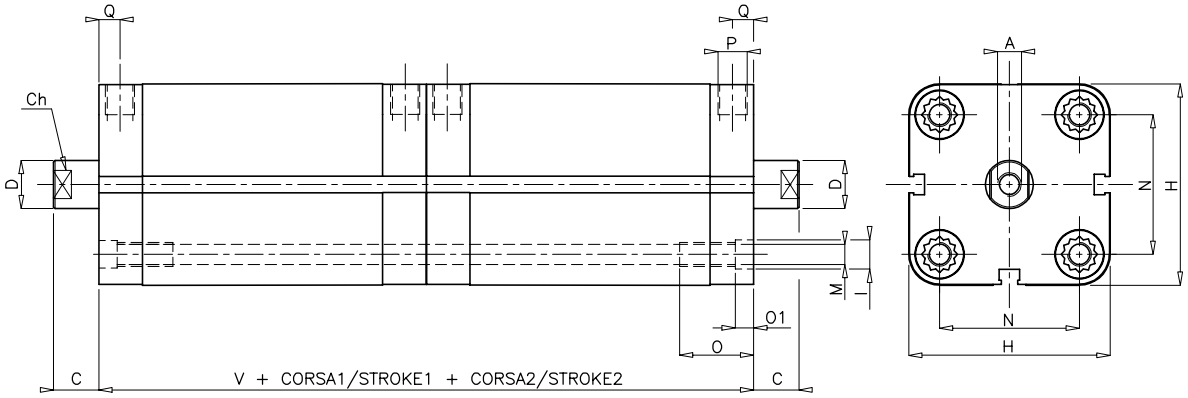
* Corse superiori su richiesta / *Longer strokes on request*



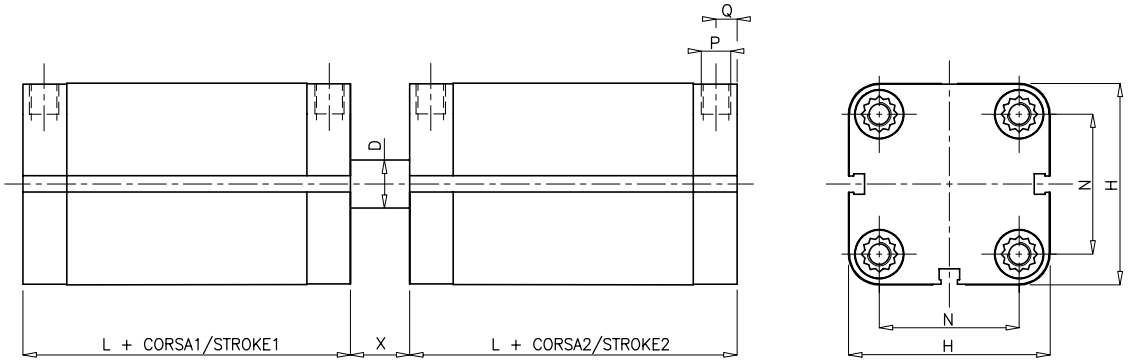


ANTIROTANTE codice. **383.0.0** Ø.corsa
NON ROTATING *code.* ***383.0.0*** *Ø.stroke*

ALESAGGIO *BORE*	C	D1	E	F	G	G1	H1	L	N	X
ø32	6	8	M5	5	16	10	50	44,5	32,5	19,8
ø40	6,5	8	M5	5	16,5	10	56	45,5	38	23,3
ø50	7,5	10	M6	6	19,5	12	67	45,5	46,5	29,7
ø63	7,5	10	M6	6	19,5	12	77	50	56,5	35,4
ø80	8	12	M8	8	22	14	96	56	72	46
ø100	10	12	M10	10	24	14	115	66,5	89	56,6

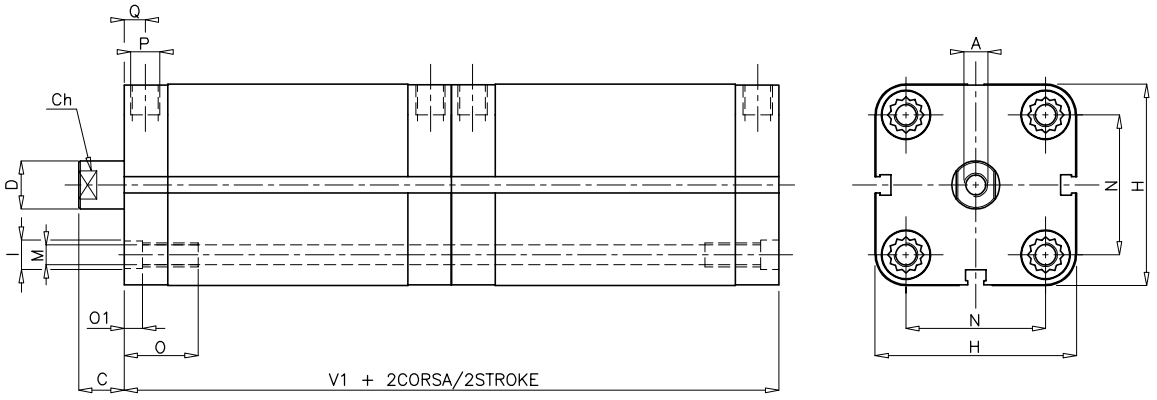


CILINDRO DOPPIO (STELI CONTRAPPOSTI) codice. **385.0.0** Ø.corsa totale*
DOUBLE CYLINDER (OPPOSITE PISTON RODS) *code.* ***385.0.0*** *Ø.overall stroke**
* In fase di ordinazione indicare sempre le due corse separatamente / *When ordering always indicate the two strokes separately*



CILINDRO DOPPIO (STELO UNICO) codice. **386.0.0** Ø.corsa totale*
DOUBLE CYLINDER (SINGLE PISTON ROD) *code.* ***386.0.0*** *Ø.overall stroke**
* In fase di ordinazione indicare sempre le due corse separatamente / *When ordering always indicate the two strokes separately*

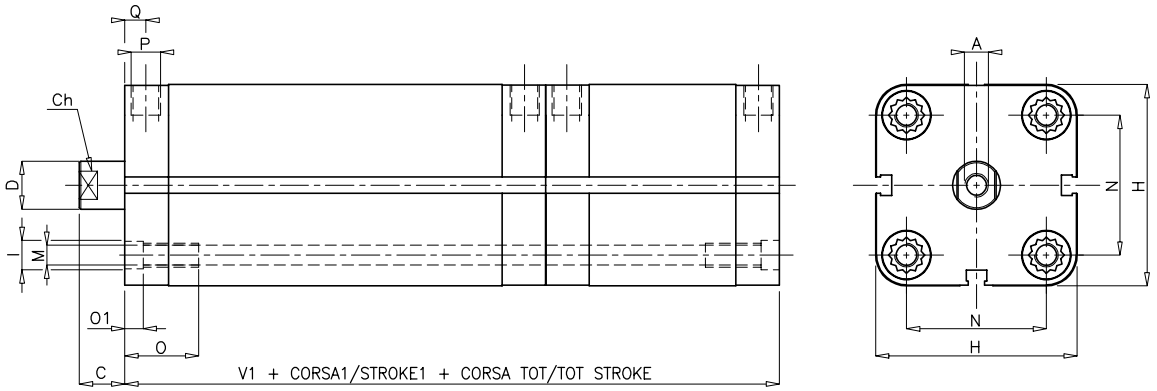
ALESAGGIO *BORE*	A	C	Ch	D	H	I	L	M	N	O	O1	P	Q	V	X
ø32	M6x12	6	10	12	50	9	44,5	M6	32,5	15	5	G 1/8"	7,5	89	12
ø40	M6x12	6,5	10	12	56	9	45,5	M6	38	15	5	G 1/8"	7,5	91	13
ø50	M8x12	7,5	13	16	67	11	45,5	M8	46,5	16	6	G 1/8"	7,5	91	15
ø63	M8x12	7,5	13	16	77	11	50	M8	56,5	16	6	G 1/8"	7,5	100	15
ø80	M10x16	8	17	20	96	14	56	M10	72	22	8	G 1/8"	8,5	112	16
ø100	M12x20	10	22	25	115	14	66,5	M10	89	22	8	G 1/4"	9,5	133	20



MOLTIPLICATORE DI FORZA (TANDEM)* codice. **387.0.0** Ø.corsa

HIGH POWER CYLINDER (TANDEM)* *code.* ***387.0.0*** *Ø.stroke*

*A richiesta ulteriori camere di spinta / *Further thrust chambers available on request*



STAZIONI MULTIPLE* codice. **388.0.0** Ø.corsa tot**

MULTIPOSITION CYLINDER* *code.* ***388.0.0*** *Ø.overall stroke***

* A richiesta ulteriori stazioni / *Further stations on request*

** In fase di ordinazione indicare anche la corsa della 1ª stazione / *When ordering also indicate the 1st station stroke*

ALESAGGIO *BORE*	A	C	Ch	D	H	I	M	N	O	O1	P	Q	V1
ø32	M6x12	6	10	12	50	9	M6	32,5	15	5	G 1/8"	7,5	94
ø40	M6x12	6,5	10	12	56	9	M6	38	15	5	G 1/8"	7,5	96
ø50	M8x12	7,5	13	16	67	11	M8	46,5	16	6	G 1/8"	7,5	96
ø63	M8x12	7,5	13	16	77	11	M8	56,5	16	6	G 1/8"	7,5	105
ø80	M10x16	8	17	20	96	14	M10	72	22	8	G 1/8"	8,5	117
ø100	M12x20	10	22	25	115	14	M10	89	22	8	G 1/4"	9,5	138

CARATTERISTICHE TECNICHE

A doppio effetto con deceleratori di fine corsa (su richiesta senza freni), funzionamento anche senza lubrificazione, testate fissate direttamente sulla camicia da 32 a 125, con tiranti 160 e 200.

alesaggi	32	40	50	63	80	100	125	160	200
lunghezza deceleratore	27	30	30	35	39	45	50	50	50

fissaggi..... flangia anteriore - flangia posteriore - piedini - cerniera anteriore e posteriore femmina - cerniera posteriore maschio - cerniera posteriore maschio snodata - cerniera intermedia - controcerniera orizzontale - forcella per stelo

versioni..... stelo semplice - stelo passante - cilindro doppio - moltiplicatore di forza - stazioni multiple

CARATTERISTICHE FUNZIONALI

fluido ..... aria filtrata con o senza lubrificazione
pressione max. ..... 10 bar
temperatura ..... 0°C ÷ 80°C (-20°C con aria secca)

CARATTERISTICHE COSTRUTTIVE

testate ..... in lega di alluminio pressofuse verniciate nere
camicia ..... in lega di alluminio estruso calibrato e ossidato duro interno-esterno
stelo ..... in acciaio C40 cromato (su richiesta inox)
pistone ..... monoblocco in gomma speciale NBR vulcanizzata su disco metallico (con magnete permanente in plastoferrite per la versione magnetica)
boccola guida stelo..... autolubrificante con armatura in acciaio rivestita internamente in PTFE
guarnizioni tenuta stelo.... in gomma speciale NBR
altre guarnizioni ..... in gomma NBR

CORSE STANDARD DISPONIBILI VALIDE PER TUTTI GLI ALESAGGI A DOPPIO EFFETTO

mm 25 - 50 - 60 - 70 - 75 - 80 - 100 - 120 - 125 - 130 - 150 - 160 - 175 - 200 - 220 - 250 - 300 - 320 - 350 - 400 - 450 - 500 - 600 - 700 - 800 - 900 - 1000

LEGENDA CODICI

□. □. □. Ø .corsa .[S] — senza deceleratori

320 - stelo semplice
321 - stelo passante
322 - motliplicatore di forza (tandem)
323 - stazioni multiple
327 - cilindro doppio steli contrapposti
328 - cilindro doppio stelo unico

0 - stelo cromato
1 - stelo inox

0 - camicia profilo Mickey-mouse non magnetico
1 - camicia profilo Mickey-mouse magnetico
2 - camicia profilo quadro magnetico
3 - camicia profilo quadro non magnetico

TECHNICAL CHARACTERISTICS

Double-acting with limit switch deceleration (without decelerator on request), also operates without lubrication, end cover directly fixed on the tube (D. 32 - 125) by tie rods (D. 160 - 200).

bores	32	40	50	63	80	100	125	160	200
decelerator length	27	30	30	35	39	45	50	50	50

fixings ..... *front flange - rear flange - feet - front and rear female bracket - rear male bracket - rear articulated male joint - intermediate bracket - horizontal counter-bracket - fork for piston rod*
versions ... *simple piston rod - double piston rod - double cylinder - high power cylinder - multiposition cylinder*

FUNCTIONING CHARACTERISTICS

fluid ..... *filtered air with or without lubrication*
max. pressure ..... *10 bar*
temperature ..... *0°C ÷ 80°C (-20°C with dry air)*

MANUFACTURING CHARACTERISTICS

end covers ..... *black varnished die-cast aluminium alloy*
tube ..... *extruded calibrated and oxidised aluminium alloy hard interior and exterior*
piston rod ..... *chromed C40 steel (stainless steel on request)*
piston ..... *monoblock in special rubber NBR vulcanised on metal disk (permanent plastoferrite magnet for magnetic version)*
piston rod guide bushing ..... *self-lubricating with steel reinforcement / internally coated with PTFE*
piston rod seals ..... *special rubber NBR*
other seals ..... *rubber NBR*

STANDARD STROKES AVAILABLE VALID FOR ALL DOUBLE-ACTING BORES

mm 25 - 50 - 60 - 70 - 75 - 80 - 100 - 120 - 125 - 130 - 150 - 160 - 175 - 200 - 220 - 250 - 300 - 320 - 350 - 400 - 450 - 500 - 600 - 700 - 800 - 900 - 1000

CODE LEGEND

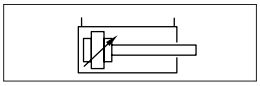
□. □. □. Ø .stroke .[S] — *without decelerator*

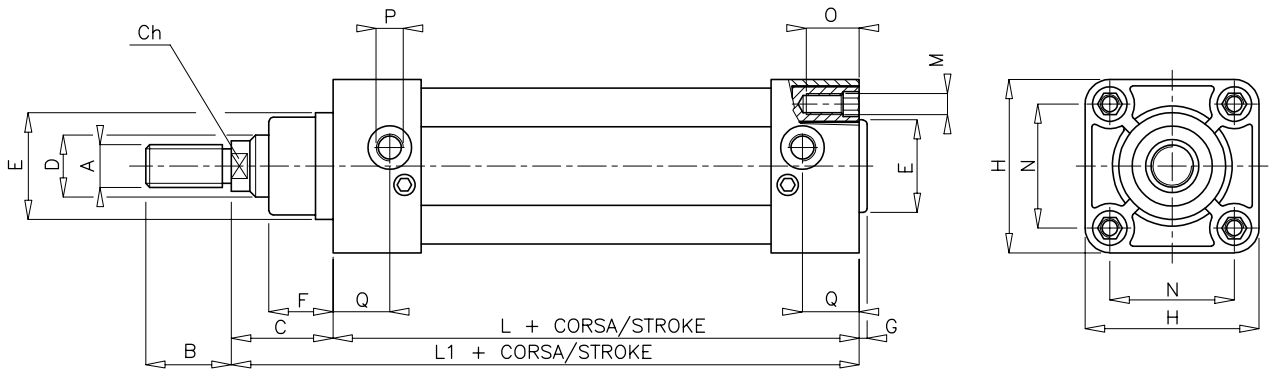
320 - simple piston rod
321 - double piston rod
322 - high power cylinder (tandem)
323 - multiposition cylinder
327 - double cylinder opposite piston rods
328 - double cylinder single piston rod

0 - chromed piston rod
1 - stainless steel piston rod

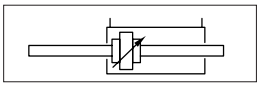
0 - non magnetic tube Mickey-mouse profile
1 - magnetic tube Mickey-mouse profile
2 - magnetic tube square profile
3 - non magnetic tube square profile

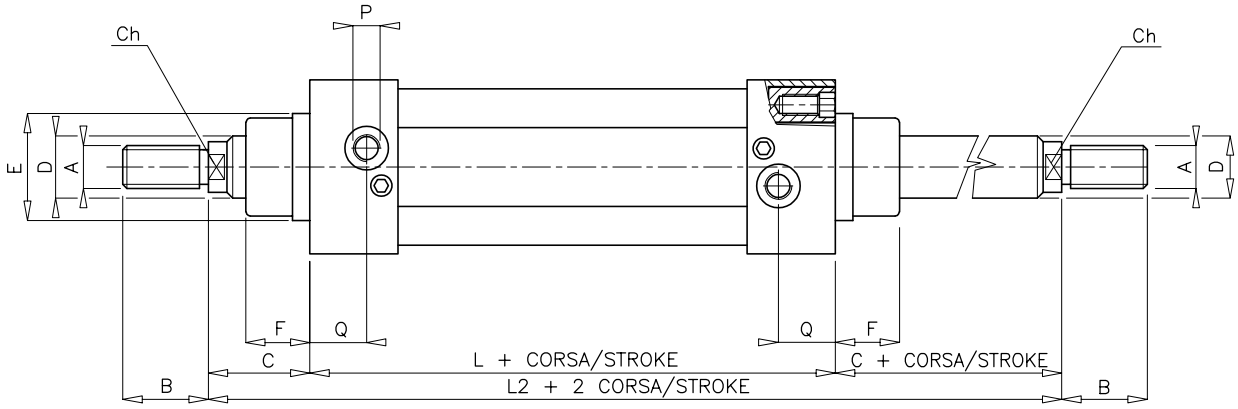
Cilindri ISO 15552 camicia Mickey-mouse
Cylinders ISO 15552 tube Mickey-mouse





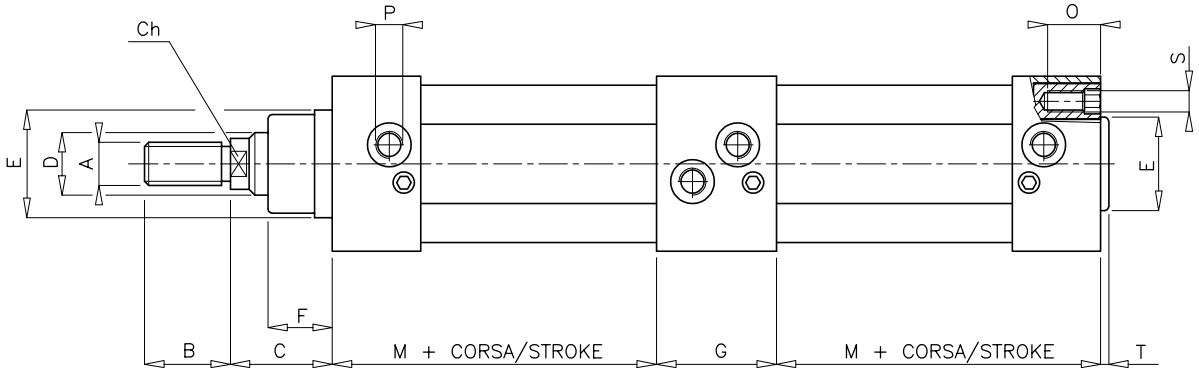
VERSIONE STANDARD codice. **320.00** Ø.corsa
STANDARD VERSION *code.* ***320.00*** *Ø.stroke*



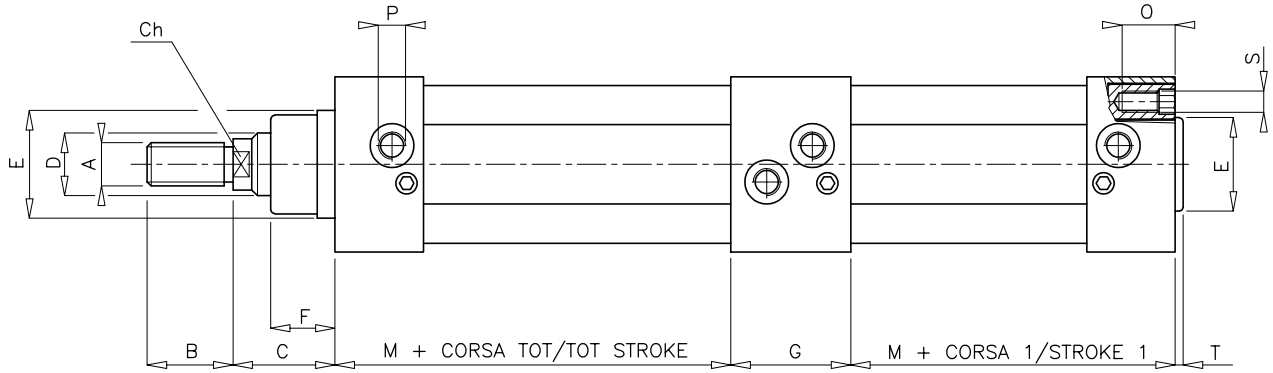


VERSIONE STANDARD stelo passante codice. **321.00** Ø.corsa
STANDARD VERSION *double piston rod code.* ***321.00*** *Ø.stroke*

ALESAGGIO *BORE*	A	B	Ch	C	D	E	F	G	H	L	L1	L2	M	N	O	P	Q
32	M 10x1,25	22	8	26	12	30	15	2,5	45	94	120	146	M 6	32,5	14	1/8"	19
40	M 12x1,25	24	12	30	16	35	18	3	52	105	135	165	M 6	38	14	1/4"	18
50	M 16x1,5	32	17	37	20	40	24	3	65	106	143	180	M 8	46,5	17	1/4"	21,5
63	M 16x1,5	32	17	37	20	45	24	4	75	121	158	195	M 8	56,5	17	3/8"	22
80	M 20x1,5	40	20	46	25	45	28	4	95	128	174	220	M10	72	24	3/8"	25
100	M 20x1,5	40	20	51	25	55	33	5	115	138	189	240	M10	89	24	1/2"	22
125	M 27x2	54	27	65	32	55	36	5	140	160	225	290	M12	110	28	1/2"	27



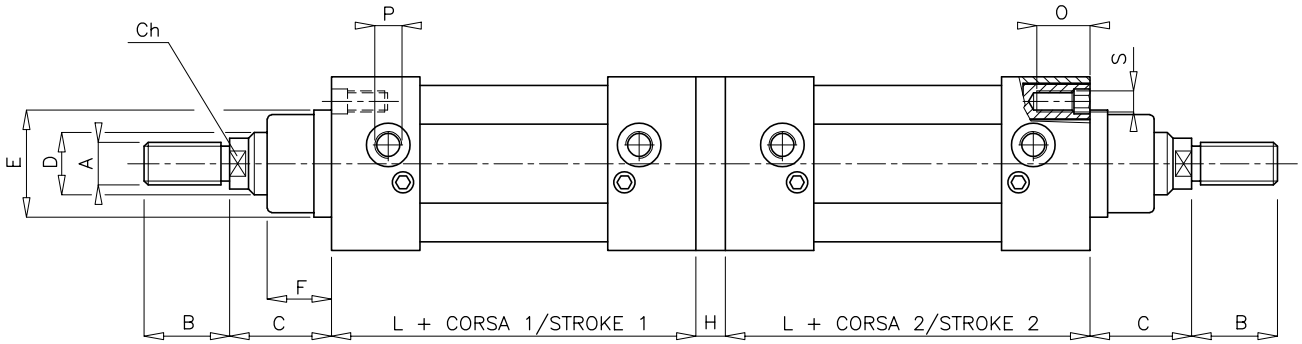
MOLTIPLICATORE DI FORZA (TANDEM)* codice. **322.0.0** Ø.corsa
HIGH POWER CYLINDER (TANDEM)* *code.* ***322.0.0*** *Ø.stroke*
*A richiesta ulteriori camere di spinta / *Further thrust chambers available on request*



STAZIONI MULTIPLE* codice. **323.0.0** Ø. corsa tot**
MULTIPOSITION CYLINDER* *code.* ***323.0.0*** *Ø.overall stroke* **
* A richiesta ulteriori stazioni / *Further stations on request*
** In fase di ordinazione indicare anche la corsa della 1ª stazione / *When ordering also indicate the 1st station stroke*

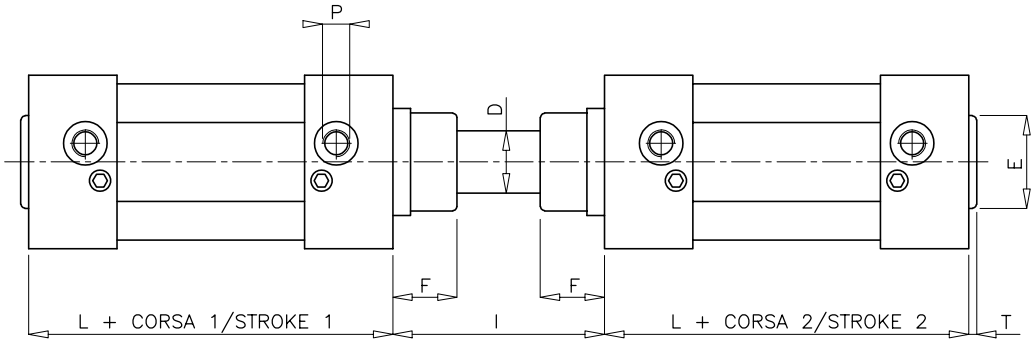
ALESAGGIO *BORE*	A	B	Ch	C	D	E	F	G	M	O	P	S	T
32	M 10x1,25	22	8	26	12	30	15	37	66	13	1/8"	M 5	2,5
40	M 12x1,25	24	12	30	16	35	18	42	74	13	1/4"	M 5	3
50	M 16x1,5	32	17	37	20	40	24	49	73	15	1/4"	M 6	3
63	M 16x1,5	32	17	37	20	45	24	52	84	15	3/8"	M 6	4
80	M 20x1,5	40	20	46	25	45	28	63	88	17	3/8"	M 8	4
100	M 20x1,5	40	20	51	25	55	33	65	98	17	1/2"	M 8	5
125	M 27x2	54	27	65	32	55	36	67	115	21	1/2"	M10	5

Cilindri ISO 15552 camicia Mickey-mouse
Cylinders ISO 15552 tube Mickey-mouse



CILINDRO DOPPIO (STELI CONTRAPPOSTI) codice. **327.0.0** Ø.corsa totale*
DOUBLE CYLINDER (OPPOSITE PISTON RODS) *code.* ***327.0.0*** *Ø. overall stroke**

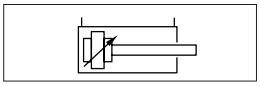
* In fase di ordinazione indicare sempre le due corse separatamente / *When ordering always indicate the two strokes separately*

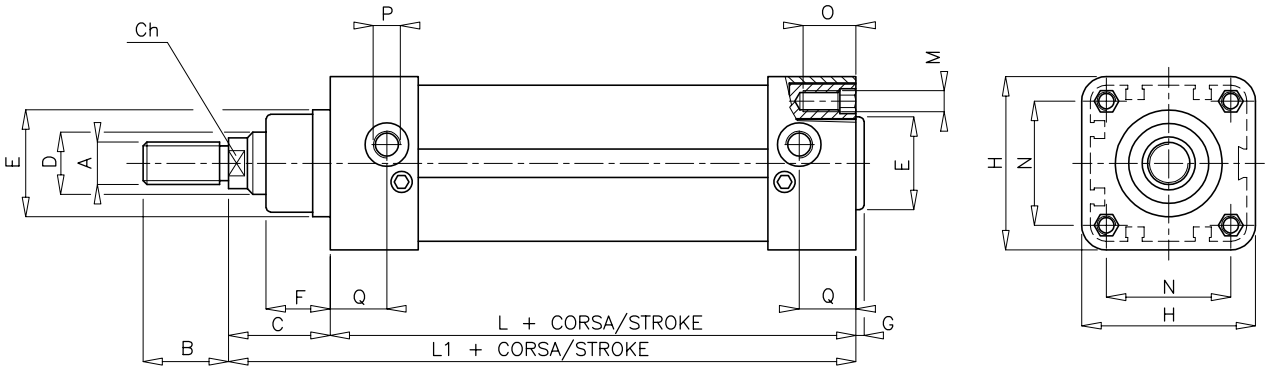


CILINDRO DOPPIO (STELO UNICO) codice. **328.0.0** Ø.corsa totale*
DOUBLE CYLINDER (SINGLE PISTON ROD) *code.* ***328.0.0*** *Ø.overall stroke**

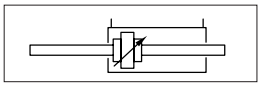
* In fase di ordinazione indicare sempre le due corse separatamente / *When ordering always indicate the two strokes separately*

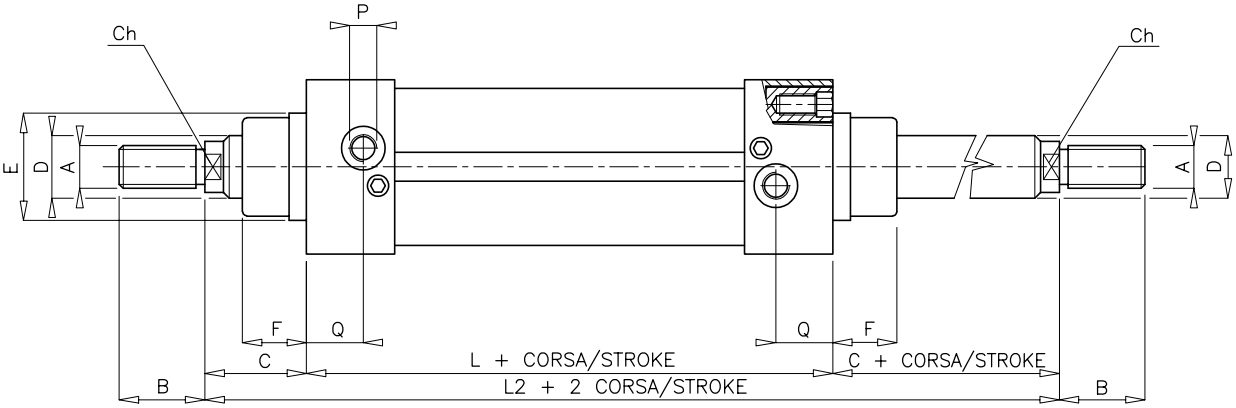
ALESAGGIO *BORE*	A	B	Ch	C	D	E	F	H	I	L	O	P	S	T
32	M 10x1,25	22	8	26	12	30	15	10	48	94	13	1/8"	M 5	2,5
40	M 12x1,25	24	12	30	16	35	18	10	54	105	13	1/4"	M 5	3
50	M 16x1,5	32	17	37	20	40	24	10	67	106	15	1/4"	M 6	3
63	M 16x1,5	32	17	37	20	45	24	13	67	121	15	3/8"	M 6	4
80	M 20x1,5	40	20	46	25	45	28	10	82	128	17	3/8"	M 8	4
100	M 20x1,5	40	20	51	25	55	33	13	90	138	17	1/2"	M 8	5
125	M 27x2	54	27	65	32	55	36	13	115	160	21	1/2"	M10	5





VERSIONE STANDARD codice. **320.02** Ø.corsa
STANDARD VERSION *code.* ***320.02*** *Ø.stroke*

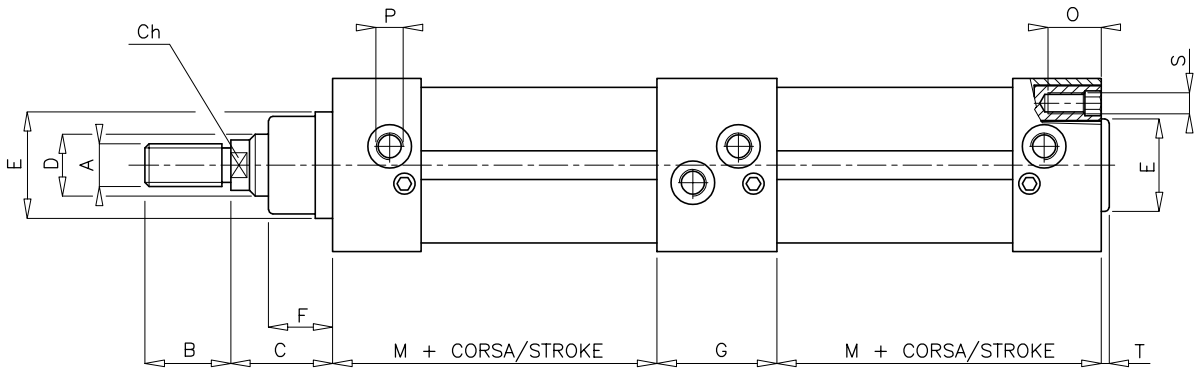




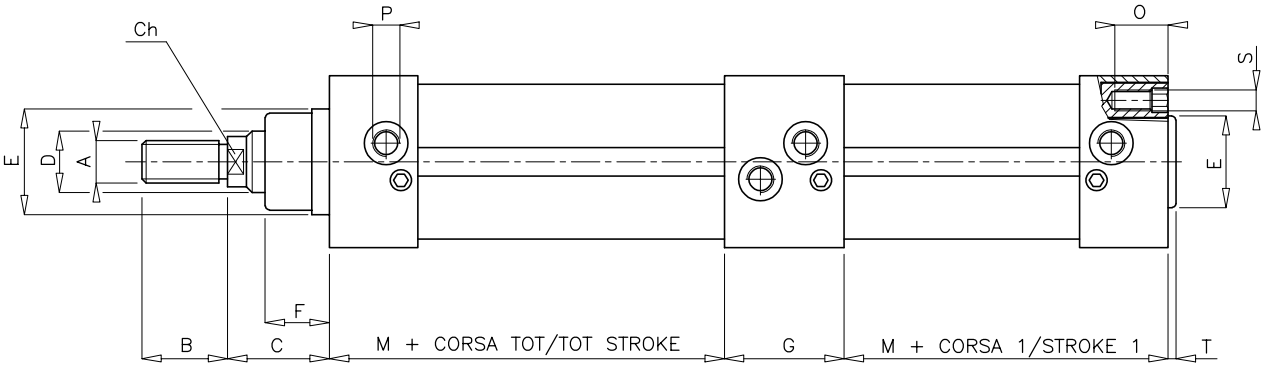
VERSIONE STANDARD stelo passante codice. **321.02** Ø.corsa
STANDARD VERSION *double piston rod code.* ***321.02*** *Ø.stroke*

ALESAGGIO *BORE*	A	B	Ch	C	D	E	F	G	H	L	L1	L2	M	N	O	P	Q
32	M 10x1,25	22	8	26	12	30	15	2,5	45	94	120	146	M 6	32,5	14	1/8"	19
40	M 12x1,25	24	12	30	16	35	18	3	52	105	135	165	M 6	38	14	1/4"	18
50	M 16x1,5	32	17	37	20	40	24	3	65	106	143	180	M 8	46,5	17	1/4"	21,5
63	M 16x1,5	32	17	37	20	45	24	4	75	121	158	195	M 8	56,5	17	3/8"	22
80	M 20x1,5	40	20	46	25	45	28	4	95	128	174	220	M10	72	24	3/8"	25
100	M 20x1,5	40	20	51	25	55	33	5	115	138	189	240	M10	89	24	1/2"	22
125	M 27x2	54	27	65	32	55	36	5	140	160	225	290	M12	110	28	1/2"	27

Cilindri ISO 15552 camicia profilo quadro
Cylinders ISO 15552 tube square profile

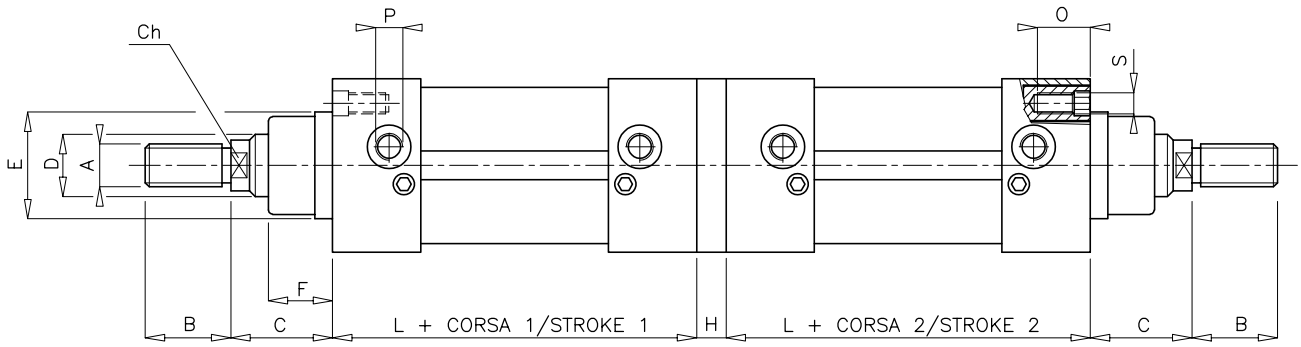


MOLTIPLICATORE DI FORZA (TANDEM)* codice. **322.0.2** Ø.corsa
HIGH POWER CYLINDER (TANDEM)* *code.* ***322.0.2*** *Ø.stroke*
*A richiesta ulteriori camere di spinta / *Further thrust chambers available on request*



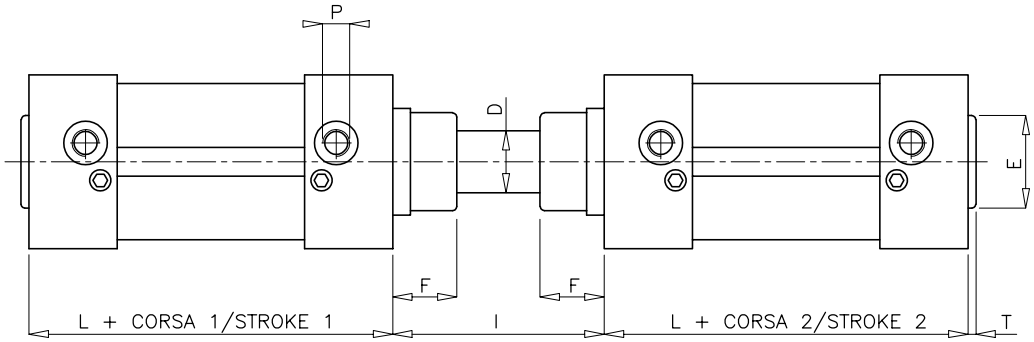
STAZIONI MULTIPLE* codice. **323.0.2** Ø. corsa tot**
MULTIPOSITION CYLINDER* *code.* ***323.0.2*** *Ø.overall stroke* **
* A richiesta ulteriori stazioni / *Further stations on request*
** In fase di ordinazione indicare anche la corsa della 1ª stazione / *When ordering also indicate the 1st station stroke*

ALESAGGIO *BORE*	A	B	Ch	C	D	E	F	G	M	O	P	S	T
32	M 10x1,25	22	8	26	12	30	15	37	66	13	1/8"	M 5	2,5
40	M 12x1,25	24	12	30	16	35	18	42	74	13	1/4"	M 5	3
50	M 16x1,5	32	17	37	20	40	24	49	73	15	1/4"	M 6	3
63	M 16x1,5	32	17	37	20	45	24	52	84	15	3/8"	M 6	4
80	M 20x1,5	40	20	46	25	45	28	63	88	17	3/8"	M 8	4
100	M 20x1,5	40	20	51	25	55	33	65	98	17	1/2"	M 8	5
125	M 27x2	54	27	65	32	55	36	67	115	21	1/2"	M10	5



CILINDRO DOPPIO (STELI CONTRAPPOSTI) codice. **327.0.2** Ø.corsa totale*
DOUBLE CYLINDER (OPPOSITE PISTON RODS) *code.* ***327.0.2*** *Ø. overall stroke**

* In fase di ordinazione indicare sempre le due corse separatamente / *When ordering always indicate the two strokes separately*



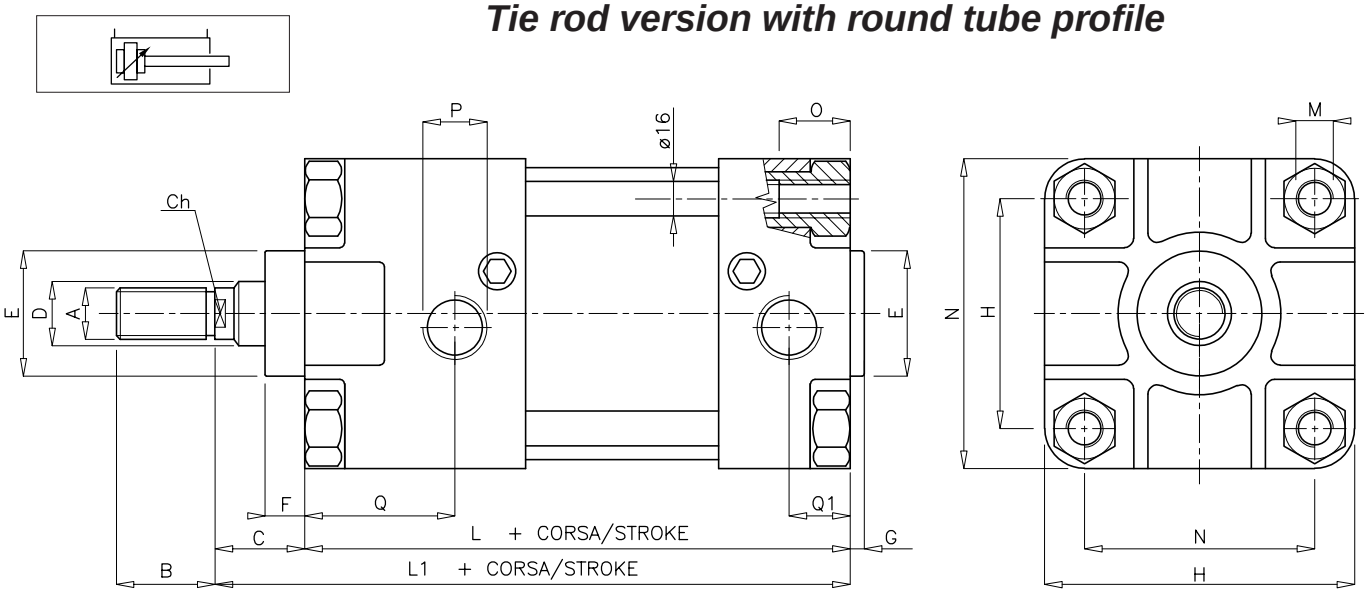
CILINDRO DOPPIO (STELO UNICO) codice. **328.0.2** Ø.corsa totale*
DOUBLE CYLINDER (SINGLE PISTON ROD) *code.* ***328.0.2*** *Ø.overall stroke**

* In fase di ordinazione indicare sempre le due corse separatamente / *When ordering always indicate the two strokes separately*

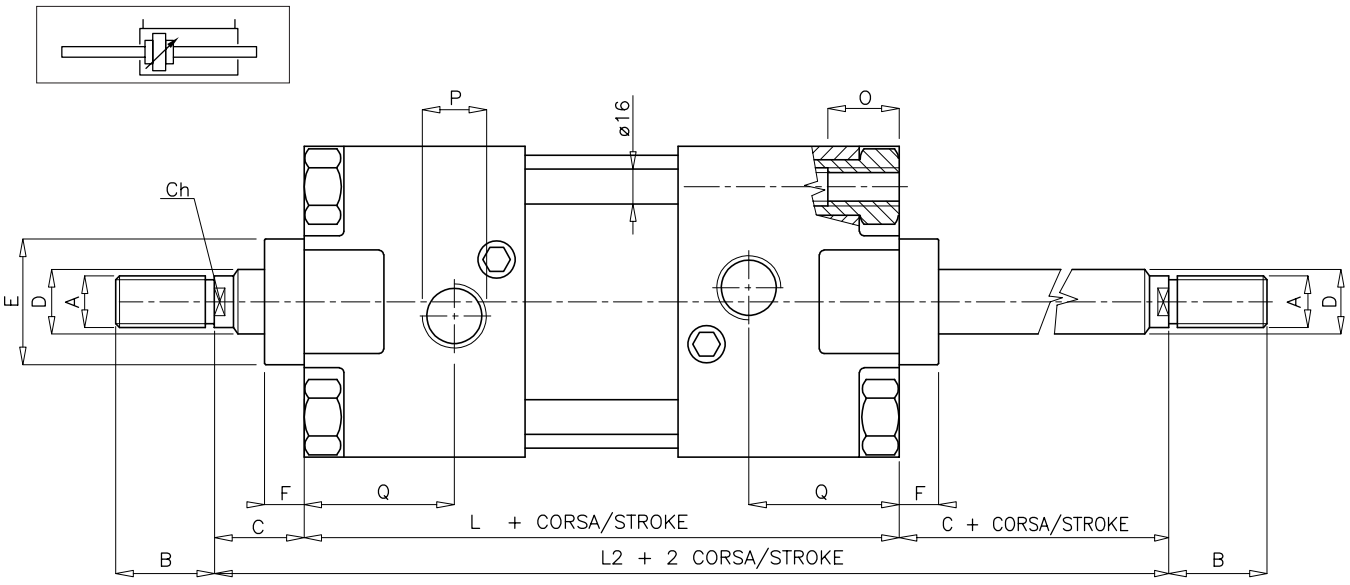
ALESAGGIO *BORE*	A	B	Ch	C	D	E	F	H	I	L	O	P	S	T
32	M 10x1,25	22	8	26	12	30	15	10	48	94	13	1/8"	M 5	2,5
40	M 12x1,25	24	12	30	16	35	18	10	54	105	13	1/4"	M 5	3
50	M 16x1,5	32	17	37	20	40	24	10	67	106	15	1/4"	M 6	3
63	M 16x1,5	32	17	37	20	45	24	13	67	121	15	3/8"	M 6	4
80	M 20x1,5	40	20	46	25	45	28	10	82	128	17	3/8"	M 8	4
100	M 20x1,5	40	20	51	25	55	33	13	90	138	17	1/2"	M 8	5
125	M 27x2	54	27	65	32	55	36	13	115	160	21	1/2"	M10	5

Cilindri ISO 15552 alesaggio 160-200
Cylinders ISO 15552 bore 160-200

Esecuzione a tiranti, tubo tondo
Tie rod version with round tube profile

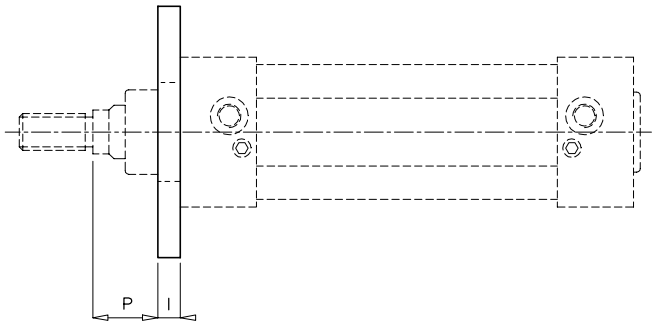


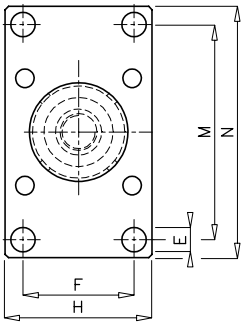
VERSIONE STANDARD codice. **320.00** Ø.corsa
STANDARD VERSION *code.* ***320.00*** *Ø.stroke*



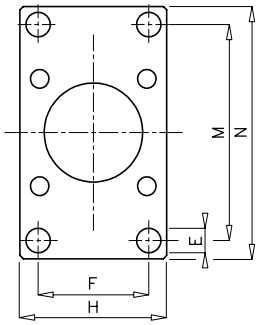
VERSIONE STANDARD stelo passante codice. **321.00** Ø.corsa
STANDARD VERSION *double piston rod code.* ***321.00*** *Ø.stroke*

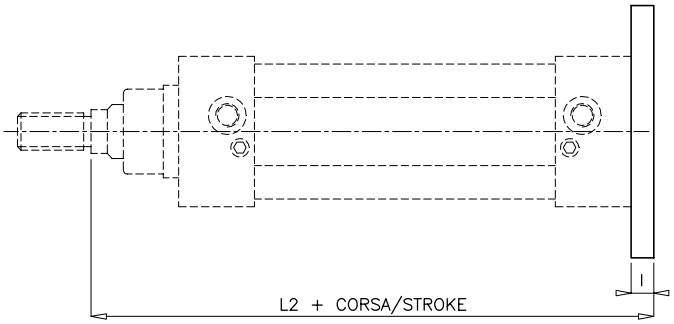
ALESAGGIO *BORE*	A	B	Ch	C	D	E	F	G	H	L	L1	L2	M	N	O	P	Q	Q1
160	M 36x2	72	36	80	40	65	25	4	180	180	260	340	M16	140	18	3/4"	47	27
200	M 36x2	72	36	95	40	65	25	4	220	180	275	370	M16	175	18	3/4"	47	27



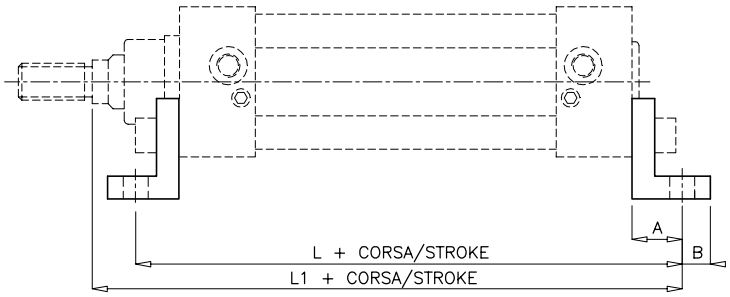


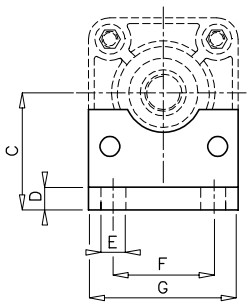
FLANGIA ANTERIORE codice. **329.01** Ø.cilindro
FRONT FLANGE *code.* ***329.01*** *Ø.cylinder*





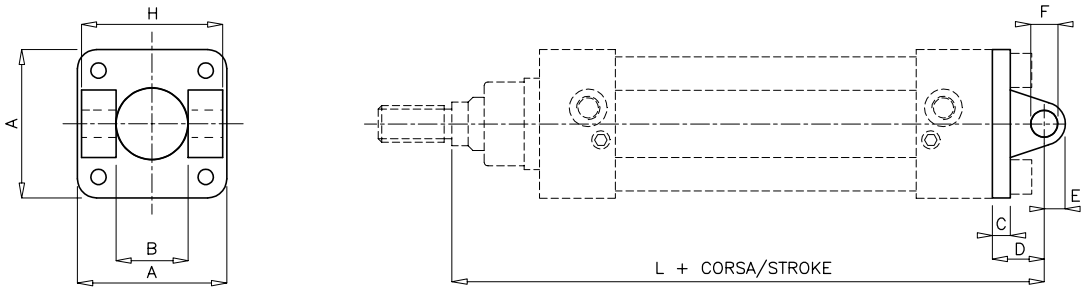
FLANGIA POSTERIORE codice. **329.02** Ø.cilindro
REAR FLANGE *code.* ***329.02*** *Ø.cylinder*



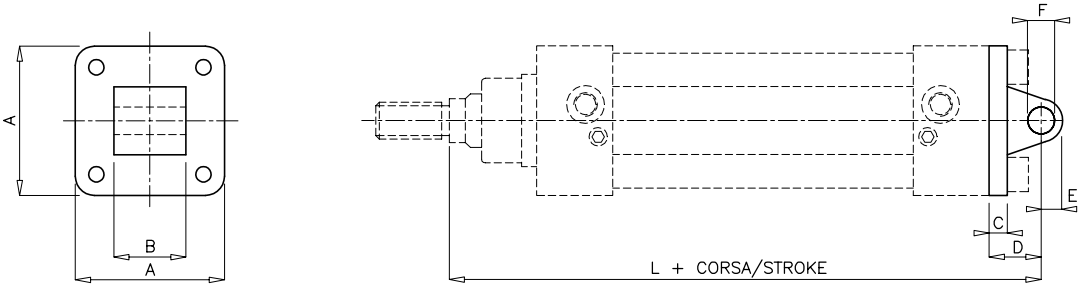


PIEDINO codice. **329.03** Ø.cilindro
FOOT *code.* ***329.03*** *Ø.cylinder*

ALESAGGIO *BORE*	A	B	C	D	E	F	G	H	I	L	L1	L2	M	N	P
32	24	11	32	4	7	32	45	50	10	142	144	130	64	80	16
40	28	15	36	4	9	36	52	55	10	161	163	145	72	90	20
50	32	15	45	4	9	45	65	65	12	170	175	155	90	110	25
63	32	15	50	6	9	50	75	75	12	185	190	170	100	120	25
80	41	20	63	6	12	63	95	95	15	210	215	190	126	150	30
100	41	25	71	6	14	75	115	115	15	220	230	205	150	178	35
125	45	15	90	8	16	90	140	140	20	250	270	245	180	220	45
160	60	20	115	10	18	115	180	180	20	300	320	280	230	270	60
200	70	30	135	12	22	135	220	225	25	320	345	300	270	312	70

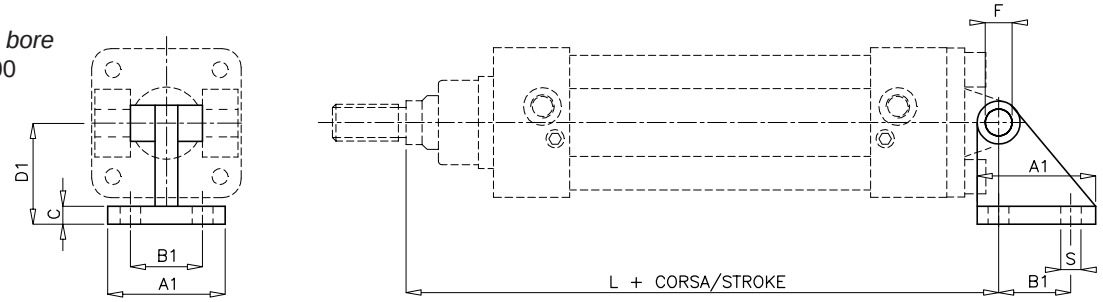


CERNIERA FEMMINA codice. **329.04** Ø.cilindro
FEMALE BRACKET *code.* ***329.04*** *Ø.cylinder*



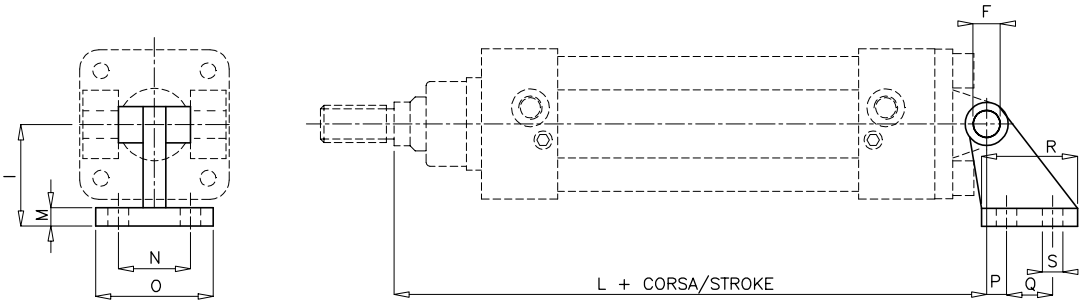
CERNIERA MASCHIO codice. **329.05** Ø.cilindro
MALE BRACKET *code.* ***329.05*** *Ø.cylinder*

alesaggio / *bore*
32 - 100

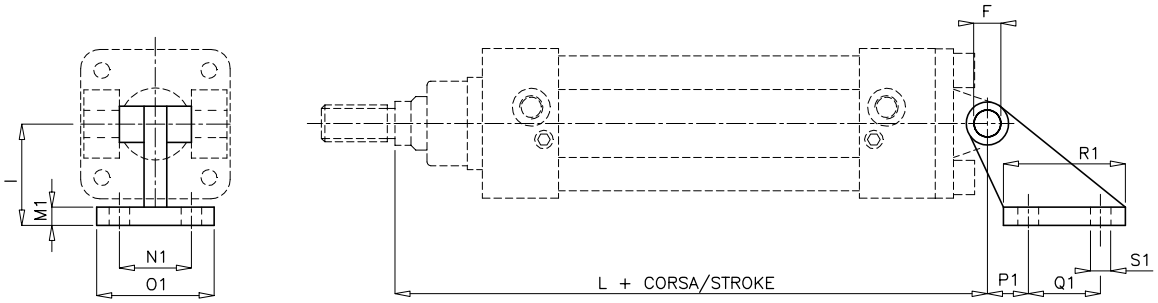


CONTROCERNIERA ORIZZONTALE A 90° (BASE QUADRA) codice. **329.06** Ø.cilindro
HORIZONTAL COUNTER-BRACKET 90° (SQUARE BASE) *code.* ***329.06*** *Ø.cylinder*

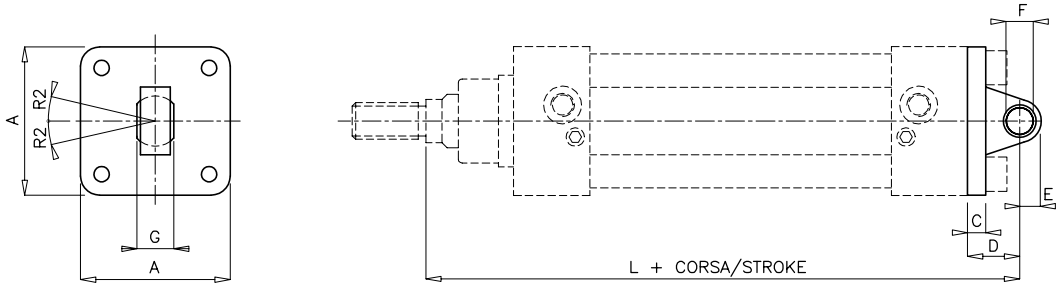
ALESAGGIO *BORE*	A	A1	B	B1	C	D	D1	E	F	H	L	S
32	45	45	26	32,5	10	22	32	11	10	45	142	7
40	52	52	28	38	10	25	36	13	12	52	160	7
50	65	65	32	46,5	12	27	45	13	12	60	170	9
63	75	75	40	56,5	12	32	50	17	16	70	190	9
80	95	95	50	72	16	36	63	17	16	90	210	11
100	115	115	60	89	16	41	73	21	20	110	230	11
125	140	-	70	-	20	50	-	26	25	130	275	-
160	180	-	90	-	20	55	-	31	30	170	315	-
200	220	-	90	-	25	60	-	31	30	170	335	-



CONTROCERNIERA ORIZZONTALE A 90° (ISO) codice. **329.18** Ø.cilindro
HORIZONTAL COUNTER-BRACKET 90° (ISO) *code.* ***329.18*** *Ø.cylinder*



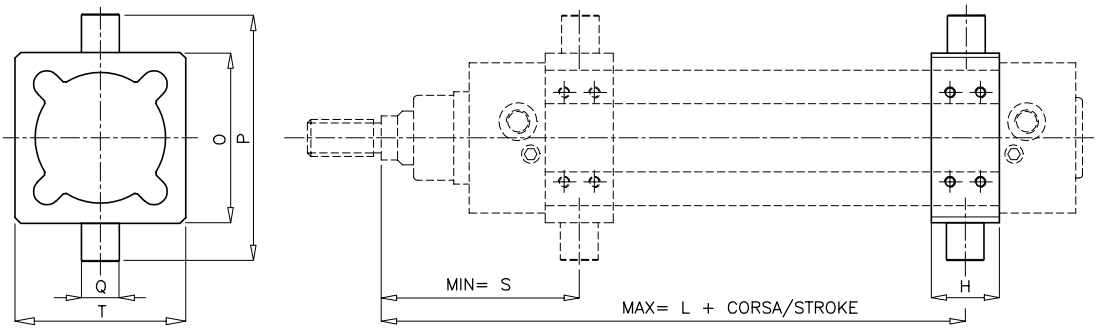
CONTROCERNIERA ORIZZONTALE A 90° (cetop) codice. **329.19** Ø.cilindro
HORIZONTAL COUNTER-BRACKET 90° *(cetop) code.* ***329.19*** *Ø.cylinder*



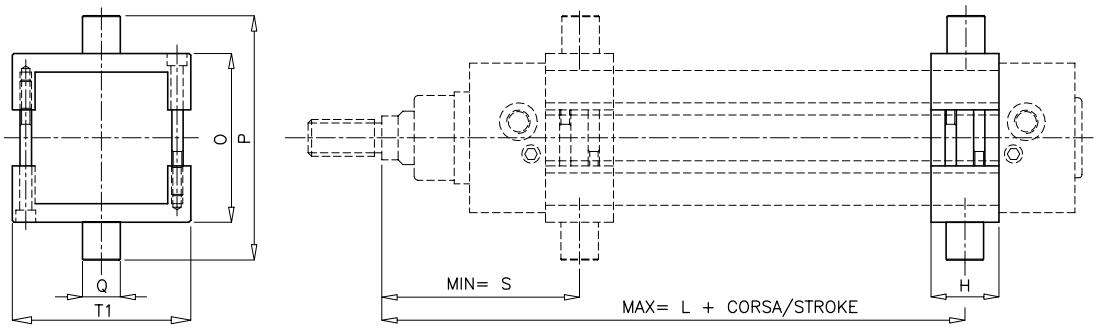
CERNIERA POSTERIORE SNODATA codice. **329.08** Ø.cilindro
REAR ARTICULATED BRACKET *code.* ***329.08*** *Ø.cylinder*

ALESAGGIO *BORE*	A	C	D	E	F	G	I	L	M1	M	N	N1	O	O1	P	P1	Q	Q1	R	R1	R2	S	S1
32	45	10	22	16	10	14	32	142	8	8	38	25	51	41	3	18	18	20	31	37	4°	7	7
40	52	10	25	19	12	16	36	160	10	10	41	32	54	52	2	25	22	32	35	54	4°	7	9
50	65	12	27	19	12	16	45	170	10	12	50	32	65	52	3	25	30	32	45	54	4°	9	9
63	75	12	32	24	16	21	50	190	12	12	52	40	67	63	2	32	35	50	50	75	4°	9	11
80	95	16	36	24	16	21	63	210	12	14	66	40	86	63	7	32	40	50	60	75	4°	11	11
100	115	16	41	30	20	25	71	230	16	15	76	50	96	80	5	40	50	70	70	103	4°	11	14
125	140	20	50	36	25	31	90	275	16	20	94	50	124	80	10	40	60	70	90	103	4°	14	14
160	180	20	55	36	30	37	115	315	20	25	118	63	156	110	9	50	88	110	126	154	4°	14	18
200	220	25	60	36	30	37	135	335	20	30	122	63	162	110	15	50	90	110	130	154	4°	18	18

Accessori cilindri ISO 15552
Cylinders ISO 15552 - accessories

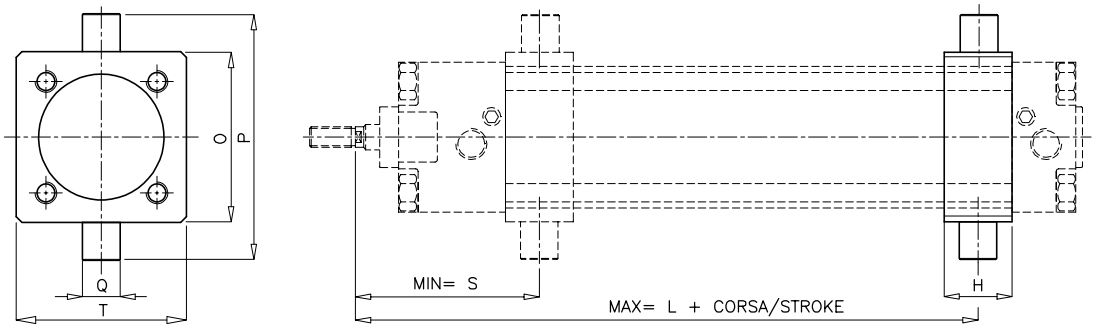


CERNIERA INTERMEDIA (profilo Mickey-mouse) codice. **329.07** Ø.cilindro
INTERMEDIATE BRACKET (Mickey-mouse tube) *code.* ***329.07*** *Ø.cylinder*

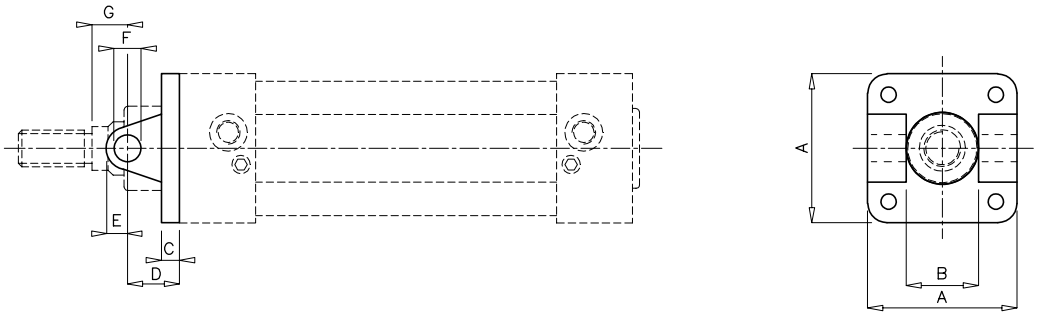


CERNIERA INTERMEDIA (profilo quadro) codice. **329.21** Ø.cilindro
INTERMEDIATE BRACKET (square tube) *code.* ***329.21*** *Ø.cylinder*

ALESAGGIO *BORE*	L	H	O	P	Q	S	T	T1
32	82	20	50	74	12	64	64	65
40	94	20	63	95	16	71	70	75
50	100	20	75	107	16	80	80	90
63	106	30	90	130	20	92	100	100
80	119	30	110	150	20	101	120	130
100	129	40	132	182	25	111	145	145
125	165	40	160	210	25	125	149	175



CERNIERA INTERMEDIA FISSA alesaggio 160-200 codice. **319.09** Ø.cilindro
FIXED INTERMEDIATE BRACKET for bore 160-200 *code.* ***319.09*** *Ø.cylinder*

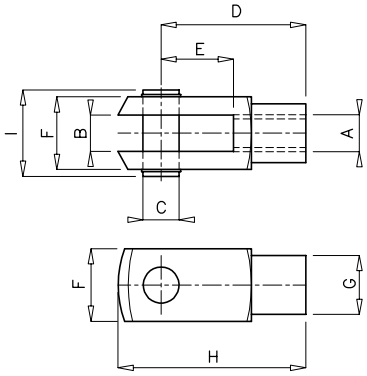


CERNIERA FEMMINA ANTERIORE codice. **329.00** Ø.cilindro
FRONT FEMALE BRACKET *code.* ***329.00*** *Ø.cylinder*

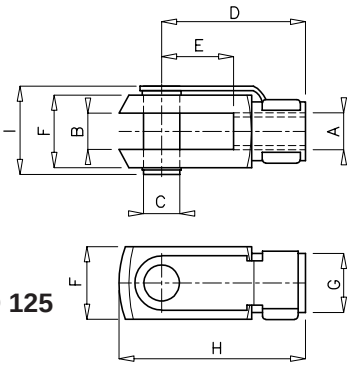
ALESAGGIO *BORE*	A	B	C	D	E	F	G	H	L	O	P	Q	S	T
32	45	26	10	22	9	10	4	-	-	-	-	-	-	-
40	52	28	10	25	11	12	5	-	-	-	-	-	-	-
50	65	32	12	27	12	12	10	-	-	-	-	-	-	-
63	75	40	12	32	16	16	5	-	-	-	-	-	-	-
80	95	50	16	36	16	16	10	-	-	-	-	-	-	-
100	115	60	16	41	20	20	10	-	-	-	-	-	-	-
125	140	70	20	50	25	25	15	-	-	-	-	-	-	-
160	180	90	20	55	31	30	25	40	190	200	264	32	170	200
200	220	90	25	60	31	30	35	40	205	250	314	32	185	250

Accessori cilindri ISO 15552

Cylinders ISO 15552 - accessories

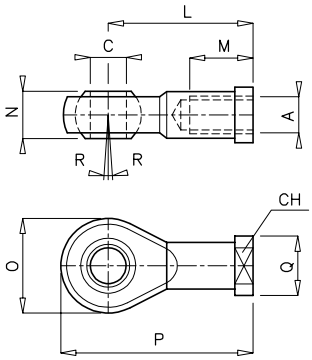


FORCELLA CON PERNO codice. **329.09** Ø .cilindro
FORCK WITH PIN *code.* ***329.09*** *Ø .cylinder*

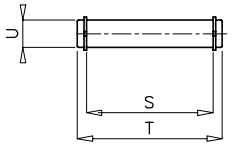


ESCLUSO ALESAGGIO 125
EXCLUDING BORE 125

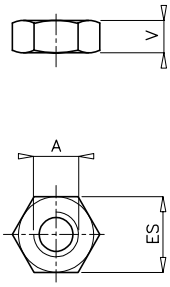
FORCELLA CON CLIPS codice. **329.10** Ø .cilindro
FORK WITH CLIPS *code.* ***329.10*** *Ø .cylinder*



SNODO SFERICO codice. **329.11** Ø .cilindro
BALL JOINT *code.* ***329.11*** *Ø .cylinder*

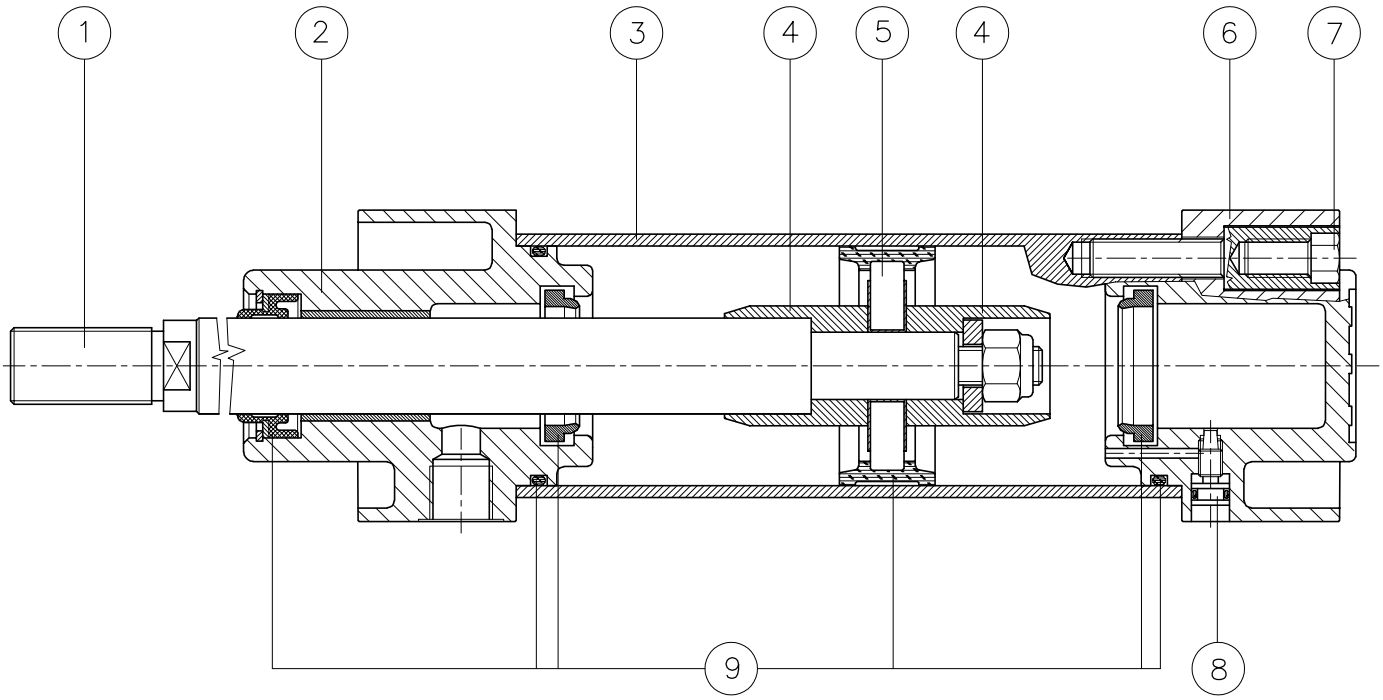


PERNO CERNIERA codice. **329.12** Ø .cilindro
BRACKET PIN *code.* ***329.12*** *Ø .cylinder*



DADO PER STELO codice. **329.13** Ø .cilindro
NUT FOR PISTON ROD *code.* ***329.13*** *Ø .cylinder*

ALESAGGIO *BORE*	A	B	C	CH	ES	D	E	F	G	H	I	L	M	N	O	P	Q	R	S	T	U	V
32	M 10x1,25	10	10	17	17	40	20	20	18	52	27	43	15	14	26	56	19	13°	46	53	10	6
40	M 12x1,25	12	12	19	19	48	24	24	20	62	31	50	18	16	30	65	22	13°	53	60	12	7
50	M 16x1,5	16	16	22	24	64	32	32	26	83	40	64	24	21	38	83	27	15°	61	68	12	8
63	M 16x1,5	16	16	22	24	64	32	32	26	83	40	64	24	21	38	83	27	15°	71	78	16	8
80	M 20x1,5	20	20	30	30	80	40	40	34	105	51	77	30	25	46	100	37	15°	91	98	16	9
100	M 20x1,5	20	20	30	30	80	40	40	34	105	51	77	30	25	46	100	37	15°	111	120	20	9
125	M 27x2	30	30	41	41	110	54	55	48	148	65	110	45	37	68	144	50	15°	131	145	25	12
160	M 36x2	35	35	50	55	144	72	70	60	188	84	125	60	43	80	165	56	15°	171	180	30	14
200	M 36x2	35	35	50	55	144	72	70	60	188	84	125	60	43	80	165	56	15°	171	180	30	14



RICAMBI
SPARES

Pos. ***Pos.***	**Descrizione** ***Description***	**N. pezzi** ***N. pieces***	**Codice** ***Code***
1	Stelo *Piston rod*	1	**R3201.Ø.corsa** ***R3201.Ø.stroke***
2	Testata anteriore completa *Complete front head*	1	**R3202.Ø**
3	Camicia *Tube*	1	**R3203.Ø.corsa** ***R3203.Ø.stroke***
4	Bussola per deceleratore *Decelerator bushing*	2	**R3204.Ø**
5	Pistone standard *Standard piston*	1	**R3205.Ø**
5	Pistone magnetico *Magnetic piston*	1	**R3213.Ø**
6	Testata posteriore completa *Complete rear head*	1	**R3206.Ø**
7	Vite di fissaggio *Fixing screw*	8	**R3207.Ø**
8	Vite regolazione deceleratore *Decelerator regulation screw*	2	**R3208.Ø**
9	Kit guarnizione *Seal kit*		**R3209.Ø**
	Kit guarnizione stelo passante *Double piston rod seal kit*		**R3210.Ø**
	Kit guarnizione magnetico *Magnetic seal kit*		**R3211.Ø**
	Kit guarnizione stelo passante magnetico *Magnetic double piston rod seal kit*		**R3212.Ø**

CARATTERISTICHE TECNICHE

alesaggi ..... 8 - 10 - 12 - 16 - 20 - 25
fissaggi ..... vite anteriore - vite posteriore - cerniera posteriore - flangia anteriore e posteriore - piedini - forcella su stelo
versioni ..... semplice effetto - doppio effetto - stelo semplice - stelo passante - pistone magnetico - deceleratori regolabili solo per gli alesaggi 16 - 20 - 25 - forniti con dado testata e dado sullo stelo

CARATTERISTICHE FUNZIONALI

fluido..... aria filtrata con o senza lubrificazione
pressione max. ..... 10 bar
temperatura ..... 0°C ÷ 80°C (-20°C con aria secca)

CARATTERISTICHE COSTRUTTIVE

testate ..... alluminio anodizzato
camicia ..... acciaio inox
stelo ..... acciaio inox AISI 303
boccola guida stelo ..... autolubrificante in bronzo sinterizzato
pistone ..... ottone
guarnizioni ..... NBR - Poliuretano
paracolpi ..... gomma

CORSE STANDARD NORMALMENTE DISPONIBILI

mm 10 - 25 - 50 semplice effetto tutti gli alesaggi

mm 10 - 25 - 50 - 80 - 100 - 125 - 160 - 200 doppio effetto tutti gli alesaggi

mm 250 - 320 doppio effetto alesaggi 12 - 16 - 20 - 25

mm 400 - 500 - 600 - 700 - 800 - 900 - 1000 doppio effetto alesaggi 16 - 20 - 25

LEGENDA CODICI

□ . □ . □ . Ø .corsa

350 - stelo semplice 351 - stelo passante	0 - D.E. 1 - D.E. magnetico 2 - S.E 3 - S.E. magnetico	0 - senza deceleratori 1 - con deceleratori

TECHNICAL CHARACTERISTICS

bores..... *8 - 10 - 12 - 16 - 20 - 25*
fixings..... *front screw - rear screw - rear bracket - front and rear flange - feet - fork on piston rod*
versions..... *single acting - double-acting - simple piston rod - double piston rod - magnetic piston - adjustable decelerators only for bores 16 - 20 - 25 - supplied with cover and piston rod nuts*

FUNCTIONING CHARACTERISTICS

fluid..... *filtered air with or without lubrication*
max. pressure ..... *10 bar*
temperature ..... *0°C ÷ 80°C (-20°C with dry air)*

MANUFACTURING CHARACTERISTICS

end covers ..... *anodised aluminium*
tube ..... *stainless steel*
piston rod ..... *AISI 303 stainless steel*
piston rod guide bushing ... *self-lubricating in sinterised bronze*
piston ..... *brass*
seals ..... *NBR - Polyurethane*
buffer ..... *rubber*

NORMALLY AVAILABLE STANDARD STROKES

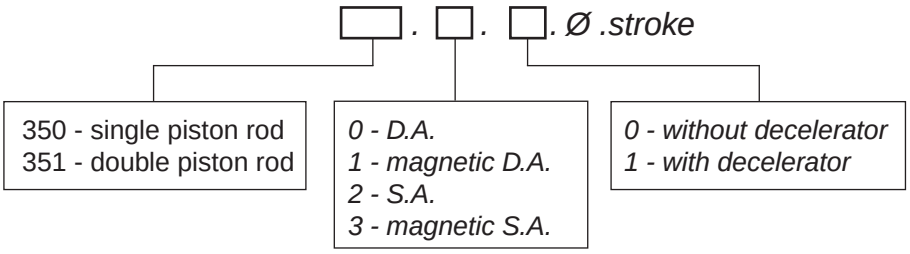
mm 10 - 25 - 50 single acting all bores

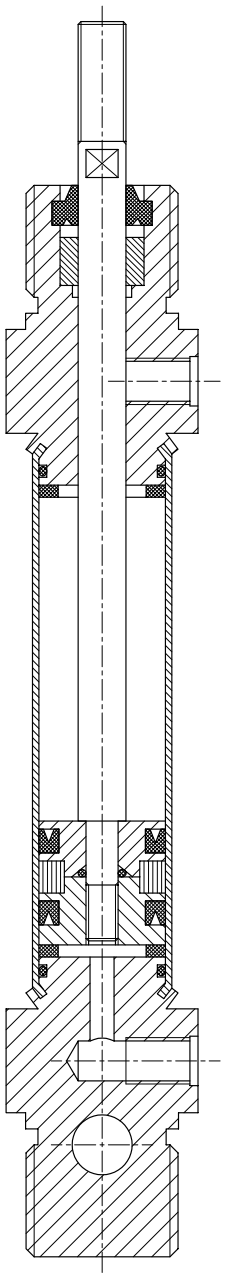
mm 10 - 25 - 50 - 80 - 100 - 125 - 160 - 200 double-acting all bores

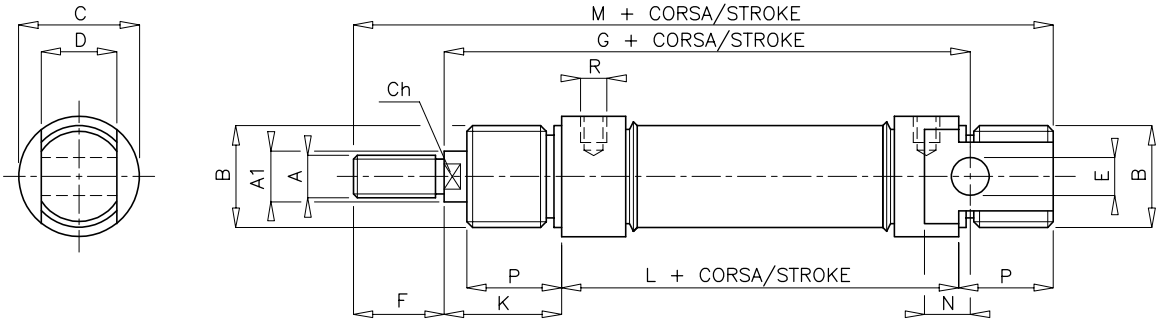
mm 250 - 320 double acting bores12 - 16 - 20 - 25

mm 400 - 500 - 600 - 700 - 800 - 900 - 1000 double acting bores 16 - 20 - 25

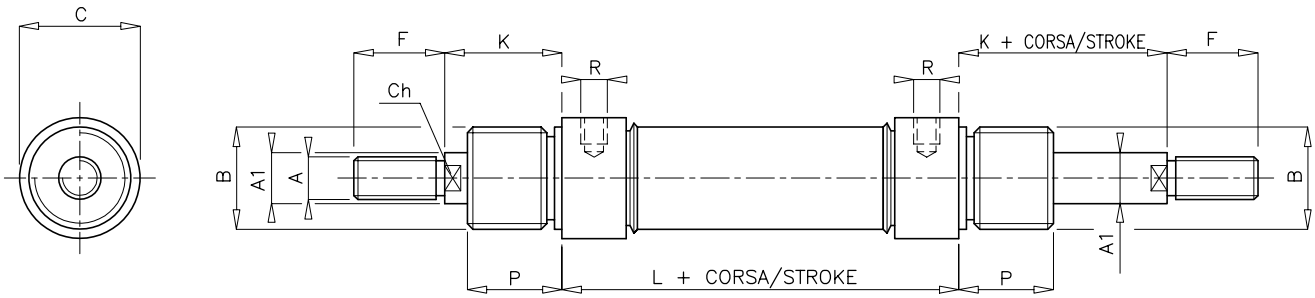
CODE LEGEND





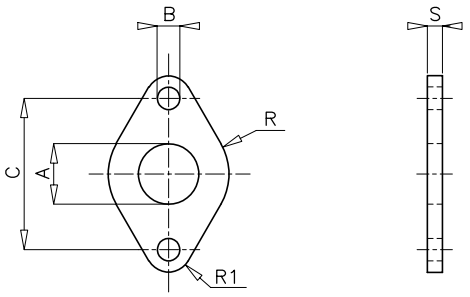


VERSIONE STANDARD codice. **350.00** Ø.corsa
STANDARD VERSION *code.* ***350.00*** *Ø.stroke*

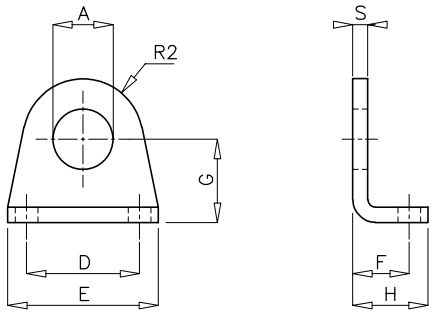


VERSIONE STANDARD stelo passante codice. **351.00** Ø.corsa
STANDARD VERSION *double piston rod code.* ***351.00*** *Ø.stroke*

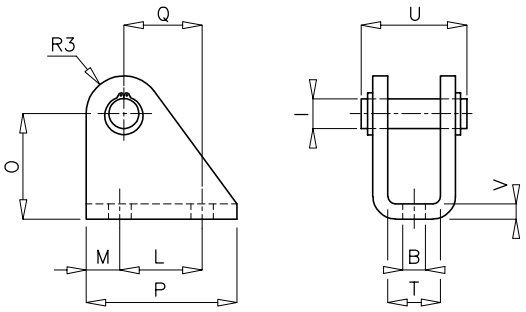
ALESAGGIO *BORE*	A	A1	B	Ch	C	D	E	F	G	K	L	M	N	P	R
8	M4	4	M12x1,25	-	16	8	4	12	64	16	46	86	6	12	M5
10	M4	4	M12x1,25	-	16	8	4	12	64	16	46	86	6	12	M5
12	M6	6	M16x1,5	5	19	12	6	16	75	22	48	104	9	18	M5
16	M6	6	M16x1,5	5	19	12	6	16	82	22	53	109	9	18	M5
20	M8	8	M22x1,5	7	27	16	8	20	95	24	67	131	12	20	1/8"
25	M10x1,25	10	M22x1,5	9	30	16	8	22	104	28	68	140	12	22	1/8"



FLANGIA codice. **359.01** Ø
FLANGE *code.* ***359.01*** Ø

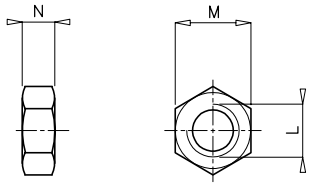


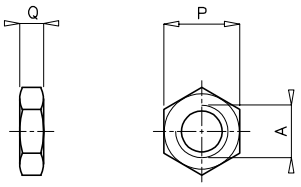
PIEDINO codice. **359.02** Ø
FOOT *code.* ***359.02*** Ø



CERNIERA OSCILLANTE codice. **359.03** Ø
OSCILLATING BRACKET *code.* ***359.03*** Ø

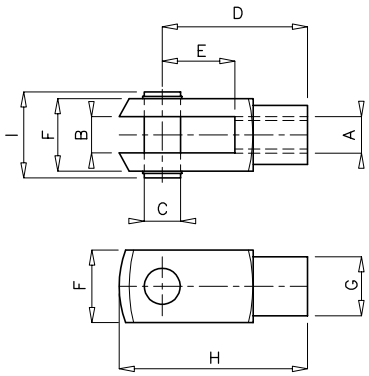
ALESAGGIO *BORE*	A	B	C	D	E	F	G	H	I	L	M	O	P	Q	R	R1	R2	R3	S	T	U	V
8	12	4,5	30	25	35	11	16	16	4	12,5	3,75	24	20	11,25	12,5	5	10	5	3	8,1	18	2,5
10	12	4,5	30	25	35	11	16	16	4	12,5	3,75	24	20	11,25	12,5	5	10	5	3	8,1	18	2,5
12	16	5,5	40	32	42	14	20	20	6	15	5	27	25	13	15	6	13	7	4	12,1	25	3
16	16	5,5	40	32	42	14	20	20	6	15	5	27	25	13	15	6	13	7	4	12,1	25	3
20	22	6,6	50	40	54	17	25	25	8	20	6	30	32	16	20	8	18	10	5	16,1	32	4
25	22	6,6	50	40	54	17	25	25	8	20	6	30	32	16	20	8	18	10	5	16,1	32	4





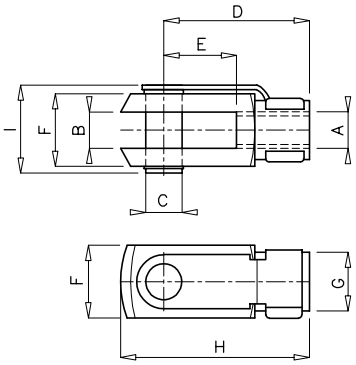
DADO PER TESTATE codice. **359.04** Ø
NUT FOR END COVERS *code.* ***359.04*** Ø

DADO PER STELO codice. **359.05** Ø
NUT FOR PISTON ROD *code.* ***359.05*** Ø



FORCELLA CON PERNO
FORK WITH PIN

codice / *code*. **359.06. Ø** (ales. 8 - 10)
codice / *code*. **309.01. 020** (ales. 12 - 16)
codice / *code*. **309.01. 027** (ales. 20)
codice / *code*. **329.09. 032** (ales. 25)



FORCELLA CON CLIPS
FORK WITH CLIPS

codice / *code*. **359.07. Ø** (ales. 8 - 10)
codice / *code*. **309.02. 020** (ales. 12 - 16)
codice / *code*. **309.02. 027** (ales. 20)
codice / *code*. **329.10. 032** (ales. 25)

ALESAGGIO *BORE*	A	B	C	D	E	F	G	H	I	L	M	N	P	Q
8	M4	4	4	16	8	8	8	21	11	M12x1,25	19	7	7	3,2
10	M4	4	4	16	8	8	8	21	11	M12x1,25	19	7	7	3,2
12	M6	6	6	24	12	12	10	31	16	M16x1,5	24	8	10	5
16	M6	6	6	24	12	12	10	31	16	M16x1,5	24	8	10	5
20	M8	8	8	32	16	16	14	42	22	M22x1,5	32	10	13	6,5
25	M10x1,25	10	10	40	20	20	18	52	26	M22x1,5	32	10	17	8


diottalevi
36010
050030
36210
MAGNETIC

CARATTERISTICHE TECNICHE

alesaggi 12 16 20 25 32 40 50 63 80 100
versioni ..... - doppio effetto
- semplice effetto stelo retratto
- semplice effetto stelo esteso
- stelo passante doppio effetto
- antirotante doppio effetto
- antirotante stelo passante doppio effetto
- cilindro doppio (standard magnetico)
- moltiplicatore di forza (standard magnetico)
- stazioni multiple (standard magnetico)

(tutte le versioni con alesaggi da ø20 al ø100 sono disponibili anche in esecuzione magnetica)
fluido ..... aria filtrata con o senza lubrificazione
pressione max. ..... 10 bar
temperatura ..... 0°C ÷ 80°C (-20°C con aria secca)
corpo ..... lega di alluminio ossidato duro
stelo ..... acciaio C 40 cromato (filetto femmina standard, filetto maschio su richiesta)
pistone ..... in alluminio
boccola guida stelo ..... autolubrificante
testate..... in alluminio ossidato
guarnizioni ..... in gomma NBR autolubrificante

CORSE STANDARD DISPONIBILI

doppio effetto ..... mm 5 - 10 - 15 - 20 - 25 - 30 (alesaggio 12 - 16)
mm 5 - 10 - 15 - 20 - 25 - 30 - 40 - 50 - 60 - 75 - 80 - 100 (alesaggio da 20 a 100)
semplice effetto ..... mm 5 - 10 (alesaggio da 12 a 40)
mm 5 - 10 - 15 - 20 (alesaggio da 50 a 100)

LEGENDA CODICI

□ . □ . □ . Ø .corsa . F — corpo con fori filettati

360 - stelo semplice
361 - stelo passante
362 - antirotante stelo semplice
363 - antirotante stelo passante
365 - cilindro doppio steli contrapposti
366 - cilindro doppio stelo unico
367 - moltiplicatore di forza (tandem)
368 - stazioni multiple

0 - D.E.
1 - D.E. magnetico
2 - S.E. stelo retratto
3 - S.E. stelo retratto magnetico
4 - S.E. stelo esteso
5 - S.E. stelo esteso magnetico

0 - stelo cromato standard
1 - stelo inox su richiesta

TECHNICAL CHARACTERISTICS

bores *12 16 20 25 32 40 50 63 80 100*

versions ..... *- double acting*
- single acting retracted piston rod
- single acting extended piston rod
- double acting double piston rod
- non-rotating double acting
- non-rotating double piston rod double acting
- double cylinder (magnetic standard)
- high power cylinder (magnetic standard)
- multiposition cylinder (magnetic standard)

(all versions with bores from ø20 to ø100 are also available in magnetic operation)

fluid ..... *filtered air with or without lubrication*

max. pressure ..... *10 bar*

temperature ..... *0°C ÷ 80°C (-20°C with dry air)*

body ..... *hard oxidised aluminium alloy*

piston rod ..... *chromed steel C 40 (standard female thread, male thread on request)*

piston ..... *aluminium*

piston rod guide bushing ... *self-lubricating*

heads .....*oxidised aluminium*

seals ..... *NBR rubber self lubricating*

STANDARD STROKES AVAILABLE

double acting ..... *mm 5 - 10 - 15 - 20 - 25 - 30 (bores 12 - 16)*
mm 5 - 10 - 15 - 20 - 25 - 30 - 40 - 50 - 60 - 75 - 80 - 100 (bores from 20 to 100)

single acting ..... *mm 5 - 10 (bores from 12 to 40)*
mm 5 - 10 - 15 - 20 (bores from 50 to 100)

CODE LEGEND

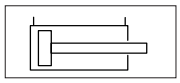
□ . □ . □ . Ø .stroke . F — *body with threaded holes*

360 - simple piston rod
361 - double piston rod
362 - non-rotating simple piston rod
363 - non-rotating double piston rod
365 - double cylinder opposite piston rods
366 - double cylinder single piston rod
367 - high-power cylinder (tandem)
368 - multiposition cylinder

0 - D.A.
1 - magnetic D.A.
2 - retracted piston rod S.A.
3 - magnetic retracted piston rod S.A.
4 - extended piston rod S.A.
5 - magnetic extended piston rod S.A.

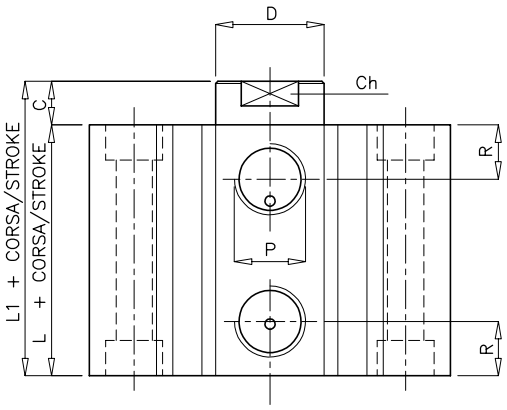
0 - standard chromed piston rod
1 - stainless steel piston rod on request

Cilindri corsa breve
Short stroke cylinders

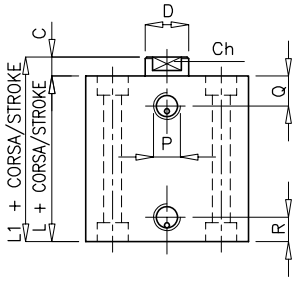


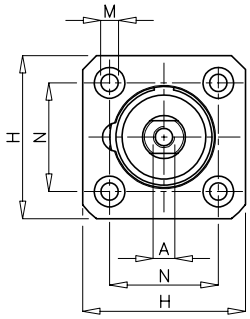
DOPPIO EFFETTO
DOUBLE ACTING

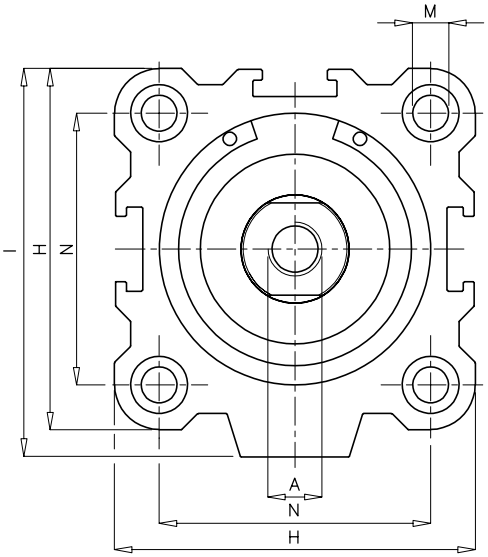
alesaggio/*bore* 20 - 100



alesaggio/*bore* 12,16



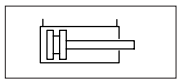




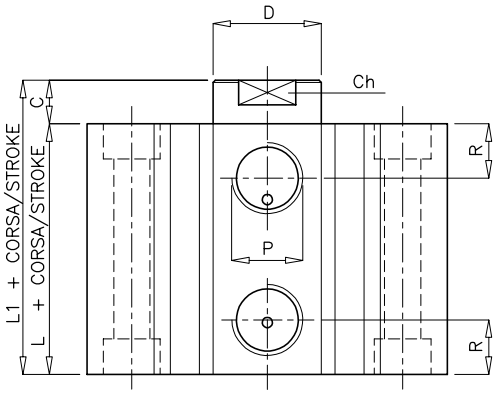
VERSIONE STANDARD codice. **360.00** Ø.corsa
STANDARD VERSION *code.* ***360.00*** *Ø.stroke*

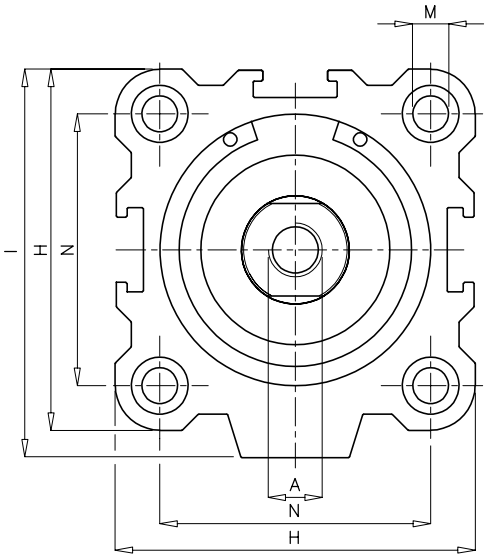
ALESAGGIO *BORE*	CORSA *STROKE*	A	C	Ch	D	H	I	L	L1	M	N	P	Q	R
12	≤ 30	M 3 x 6	3,5	5	6	25	-	17	20,5	3,3	15,5	M 5	5	5
16	≤ 30	M 4 x 8	3,5	6	8	30	-	19	22,5	3,3	20	M 5	6,5	5,5
20	≤ 50	M 5 x 8	4,5	8	10	36	38	20	24,5	4,2	25,5	M 5	-	6
	> 50 ≤ 100							30	34,5					
25	≤ 50	M 6 x 10	5	10	12	41	43	23	28	5,15	28	M 5	-	7
	> 50 ≤ 100							33	38					
32	≤ 50	M 8 x 11	7	14	16	47,5	50	23	30	5,15	34	M 5 *	-	6 *
	> 50 ≤ 100							33	40			1/8" **		7,5 **
40	≤ 50	M 8 x 11	7	14	16	56,5	59	30	37	6,7	40	1/8"	-	7,5
	> 50 ≤ 100							40	47					
50	≤ 50	M 10 x 14	8	17	20	66,5	71,5	31	39	6,7	50	1/4"	-	9
	> 50 ≤ 100							41	49					
63	≤ 50	M 10 x 14	8	17	20	80	85	36	44	8,5	60	1/4"	-	11
	> 50 ≤ 100							46	54					
80	≤ 50	M 16 x 20	10	22	25	99,5	104	44	54	10,25	77	3/8"	-	11,5
	> 50 ≤ 100							54	64					
100	≤ 50	M 20 x 25	12	27	30	120	125	53	65	10,25	94	3/8"	-	13
	> 50 ≤ 100							63	75					

* Per corse < 10 / *For strokes < 10*
** Per corse ≥ 10 / *For strokes ≥ 10*



DOPPIO EFFETTO MAGNETICO
DOUBLE ACTING MAGNETIC

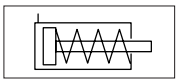




VERSIONE STANDARD codice. **360.10** Ø.corsa
STANDARD VERSION *code.* ***360.10*** *Ø.stroke*

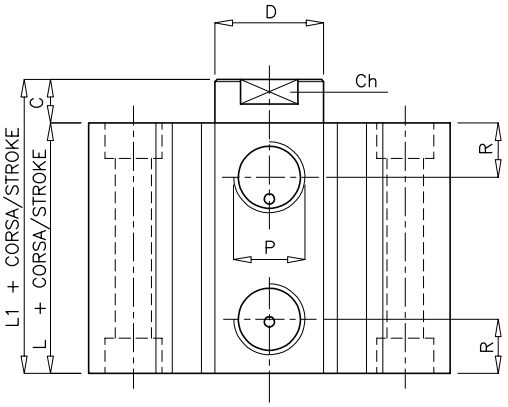
ALESAGGIO *BORE*	CORSA *STROKE*	A	C	Ch	D	H	I	L	L1	M	N	P	R
20	≤ 100	M 5 x 8	4,5	8	10	36	38	30	34,5	4,2	25,5	M 5	6
25	≤ 100	M 6 x 10	5	10	12	41	43	33	38	5,15	28	M 5	7
32	≤ 100	M 8 x 11	7	14	16	47,5	50	33	40	5,15	34	1/8"	7,5
40	≤ 100	M 8 x 11	7	14	16	56,5	59	40	47	6,7	40	1/8"	7,5
50	≤ 100	M 10 x 14	8	17	20	66,5	71,5	41	49	6,7	50	1/4"	9
63	≤ 100	M 10 x 14	8	17	20	80	85	46	54	8,5	60	1/4"	11
80	≤ 100	M 16 x 20	10	22	25	99,5	104	54	64	10,25	77	3/8"	11,5
100	≤ 100	M 20 x 25	12	27	30	120	125	63	75	10,25	94	3/8"	13

Cilindri corsa breve
Short stroke cylinders

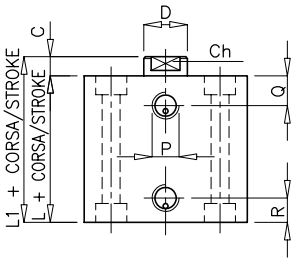


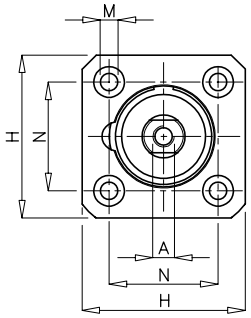
SEMPLICE EFFETTO STELO RETRATTO
SINGLE ACTING RETRACTED PISTON ROD

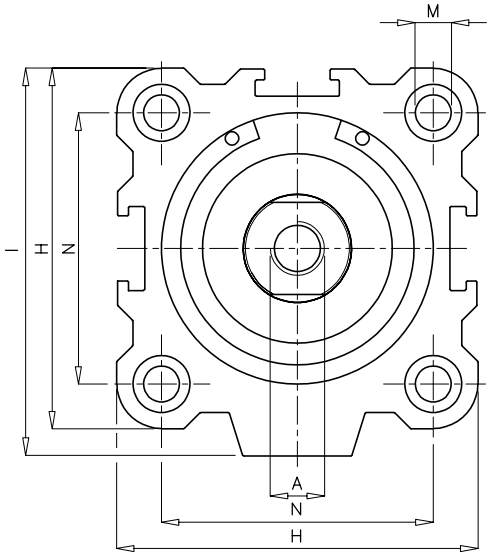
alesaggio/*bore* 20 - 100



alesaggio/*bore* 12,16



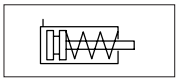




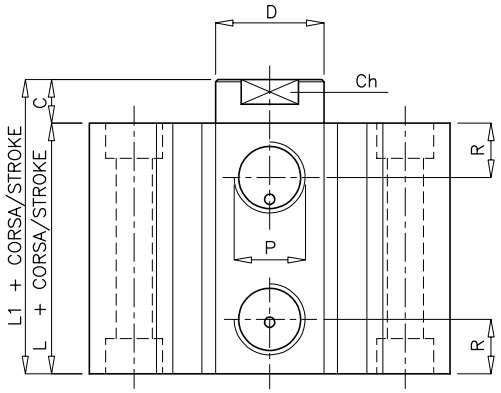
VERSIONE STANDARD codice. **360.20** Ø.corsa
STANDARD VERSION *code.* ***360.20*** *Ø.stroke*

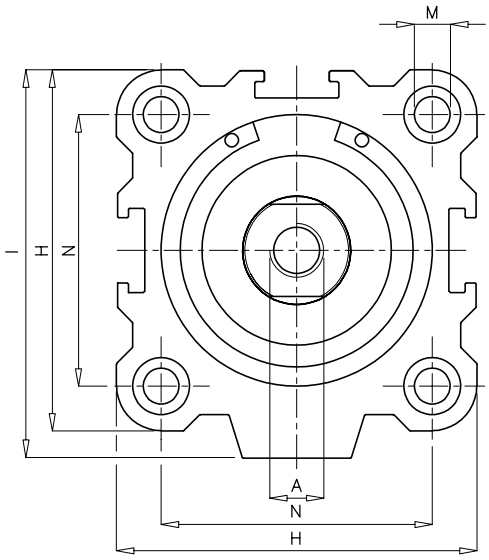
ALESAGGIO *BORE*	CORSA *STROKE*	A	C	Ch	D	H	I	L	L1	M	N	P	Q	R
12	≤ 10	M 3 x 6	3,5	5	6	25	/	22	25,5	3,3	15,5	M 5	5	5
16	≤ 10	M 4 x 8	3,5	6	8	30	/	24	27,5	3,3	20	M 5	6,5	5,5
20	≤ 10	M 5 x 8	4,5	8	10	36	38	20	24,5	4,2	25,5	M 5	-	6
25	≤ 10	M 6 x 10	5	10	12	41	43	23	28	5,15	28	M 5	-	7
32	≤ 10	M 8 x 11	7	14	16	47,5	50	23	30	5,15	34	M 5* 1/8"**	-	6* 7,5**
40	≤ 10	M 8 x 11	7	14	16	56,5	59	30	37	6,7	40	1/8"	-	7,5
50	≤ 20	M 10 x 14	8	17	20	66,5	71,5	31	39	6,7	50	1/4"	-	9
63	≤ 20	M 10 x 14	8	17	20	80	85	36	44	8,5	60	1/4"	-	11
80	≤ 20	M 16 x 20	10	22	25	99,5	104	44	54	10,25	77	3/8"	-	11,5
100	≤ 20	M 20 x 25	12	27	30	120	125	53	65	10,25	94	3/8"	-	13

* Per corse < 10 / *For strokes < 10*
** Per corsa = 10 / *For strokes = 10*



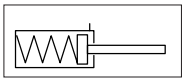
SEMPLICE EFFETTO STELO RETRATTO MAGNETICO
SINGLE ACTING RETRACTED MAGNETIC PISTON ROD



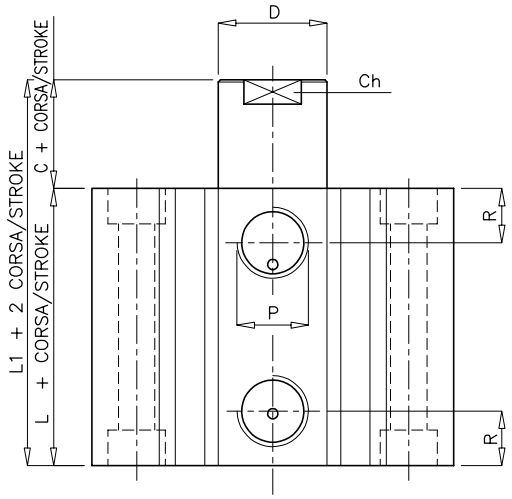


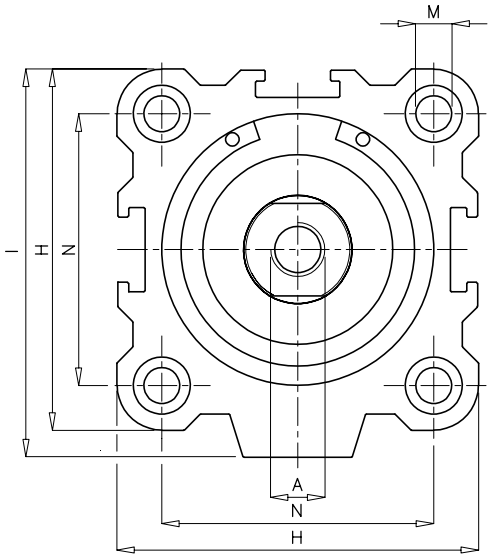
VERSIONE STANDARD codice. **360.30** Ø.corsa
STANDARD VERSION *code.* ***360.30*** *Ø.stroke*

ALESAGGIO *BORE*	CORSA *STROKE*	A	C	Ch	D	H	I	L	L1	M	N	P	R
20	≤ 10	M 5 x 8	4,5	8	10	36	38	30	34,5	4,2	25,5	M 5	6
25	≤ 10	M 6 x 10	5	10	12	41	43	33	38	5,15	28	M 5	7
32	≤ 10	M 8 x 11	7	14	16	47,5	50	33	40	5,15	34	1/8"	7,5
40	≤ 10	M 8 x 11	7	14	16	56,5	59	40	47	6,7	40	1/8"	7,5
50	≤ 20	M 10 x 14	8	17	20	66,5	71,5	41	49	6,7	50	1/4"	9
63	≤ 20	M 10 x 14	8	17	20	80	85	46	54	8,5	60	1/4"	11
80	≤ 20	M 16 x 20	10	22	25	99,5	104	54	64	10,25	77	3/8"	11,5
100	≤ 20	M 20 x 25	12	27	30	120	125	63	75	10,25	94	3/8"	13



SEMPLICE EFFETTO STELO ESTESO
SINGLE ACTING EXTENDED PISTON ROD

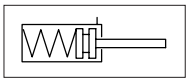




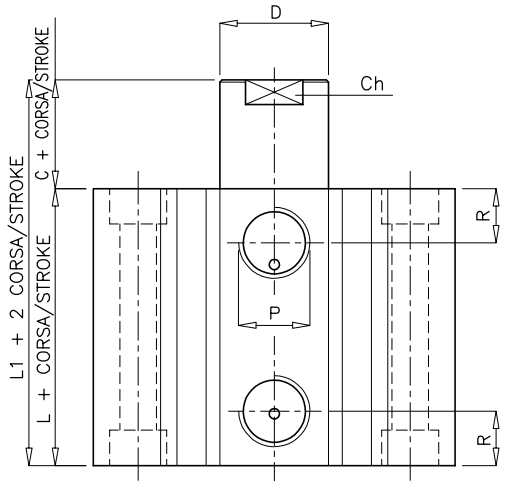
VERSIONE STANDARD codice. **360.40** Ø.corsa
STANDARD VERSION *code.* ***360.40*** *Ø.stroke*

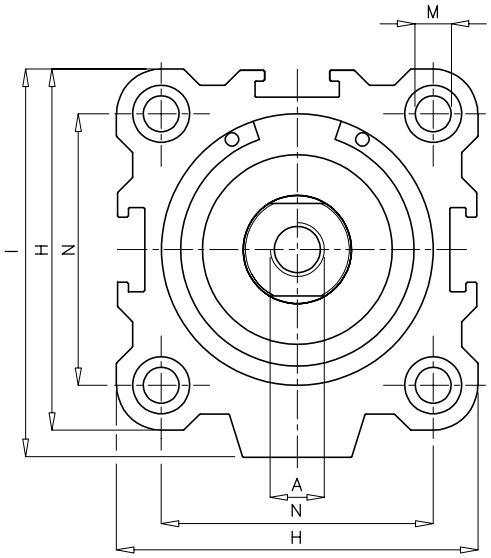
ALESAGGIO *BORE*	CORSA *STROKE*	A	C	Ch	D	H	I	L	L1	M	N	P	R
20	≤ 10	M 5 x 8	4,5	8	10	36	38	20	24,5	4,2	25,5	M 5	6
25	≤ 10	M 6 x 10	5	10	12	41	43	23	28	5,15	28	M 5	7
32	≤ 10	M 8 x 11	7	14	16	47,5	50	23	30	5,15	34	M 5* 1/8"**	6* 7,5**
40	≤ 10	M 8 x 11	7	14	16	56,5	59	30	37	6,7	40	1/8"	7,5
50	≤ 20	M 10 x 14	8	17	20	66,5	71,5	31	39	6,7	50	1/4"	9
63	≤ 20	M 10 x 14	8	17	20	80	85	36	44	8,5	60	1/4"	11
80	≤ 20	M 16 x 20	10	22	25	99,5	104	44	54	10,25	77	3/8"	11,5
100	≤ 20	M 20 x 25	12	27	30	120	125	53	65	10,25	94	3/8"	13

* Per corse < 10 / *For strokes < 10*
** Per corsa = 10 / *For strokes = 10*



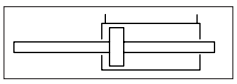
SEMPLICE EFFETTO STELO ESTESO MAGNETICO
SINGLE ACTING EXTENDED MAGNETIC PISTON ROD



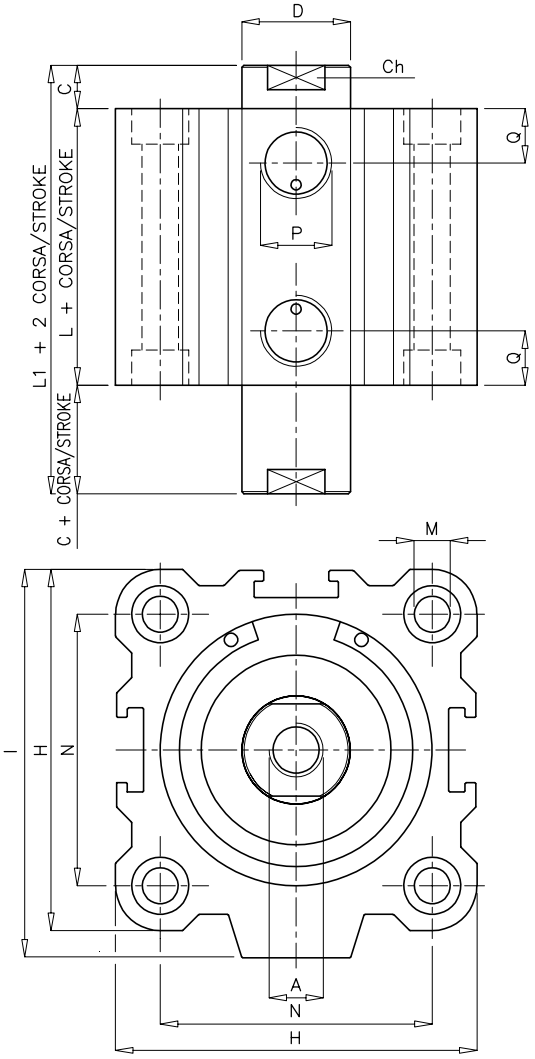


VERSIONE STANDARD codice. **360.50** Ø.corsa
STANDARD VERSION *code.* ***360.50*** *Ø.stroke*

ALESAGGIO *BORE*	CORSA *STROKE*	A	C	Ch	D	H	I	L	L1	M	N	P	R
20	≤ 10	M 5 x 8	4,5	8	10	36	38	30	34,5	4,2	25,5	M 5	6
25	≤ 10	M 6 x 10	5	10	12	41	43	33	38	5,15	28	M 5	7
32	≤ 10	M 8 x 11	7	14	16	47,5	50	33	40	5,15	34	1/8"	7,5
40	≤ 10	M 8 x 11	7	14	16	56,5	59	40	47	6,7	40	1/8"	7,5
50	≤ 20	M 10 x 14	8	17	20	66,5	71,5	41	49	6,7	50	1/4"	9
63	≤ 20	M 10 x 14	8	17	20	80	85	46	54	8,5	60	1/4"	11
80	≤ 20	M 16 x 20	10	22	25	99,5	104	54	64	10,25	77	3/8"	11,5
100	≤ 20	M 20 x 25	12	27	30	120	125	63	75	10,25	94	3/8"	13

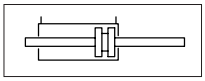


STELO PASSANTE DOPPIO EFFETTO
DOUBLE ACTING DOUBLE PISTON ROD

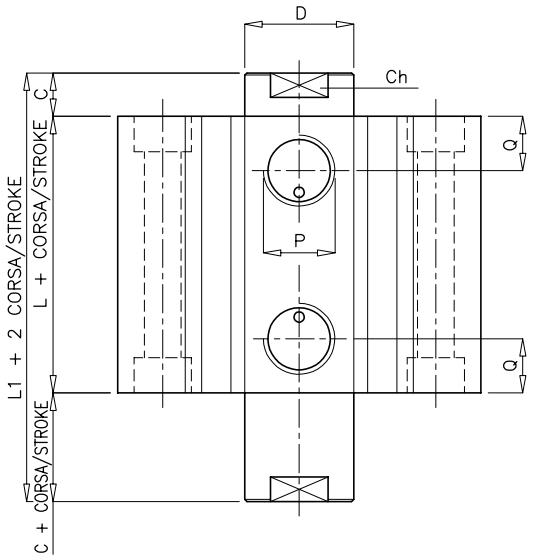


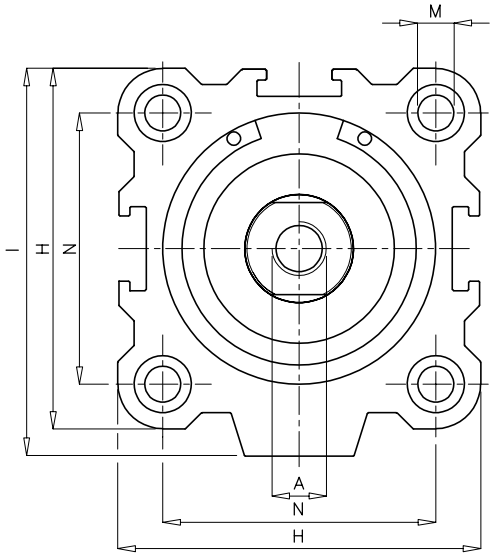
VERSIONE STANDARD codice. **361.00** Ø.corsa
STANDARD VERSION *code.* ***361.00*** *Ø.stroke*

ALESAGGIO *BORE*	CORSA *STROKE*	A	C	Ch	D	H	I	L	L1	M	N	P	Q
20	≤ 100	M 5 x 8	4,5	8	10	36	38	25	34	4,2	25,5	M 5	6
25	≤ 100	M 6 x 10	5	10	12	41	43	28	38	5,15	28	M 5	7
32	≤ 100	M 8 x 11	7	14	16	47,5	50	28	42	5,15	34	1/8"	7,5
40	≤ 100	M 8 x 11	7	14	16	56,5	59	40	54	6,7	40	1/8"	7,5
50	≤ 100	M 10 x 14	8	17	20	66,5	71,5	41	57	6,7	50	1/4"	9
63	≤ 100	M 10 x 14	8	17	20	80	85	41	57	8,5	60	1/4"	11
80	≤ 100	M 16 x 20	10	22	25	99,5	104	54	74	10,25	77	3/8"	11,5
100	≤ 100	M 20 x 25	12	27	30	120	125	63	87	10,25	94	3/8"	13



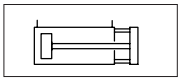
STELO PASSANTE DOPPIO EFFETTO MAGNETICO
DOUBLE ACTING MAGNETIC DOUBLE PISTON ROD





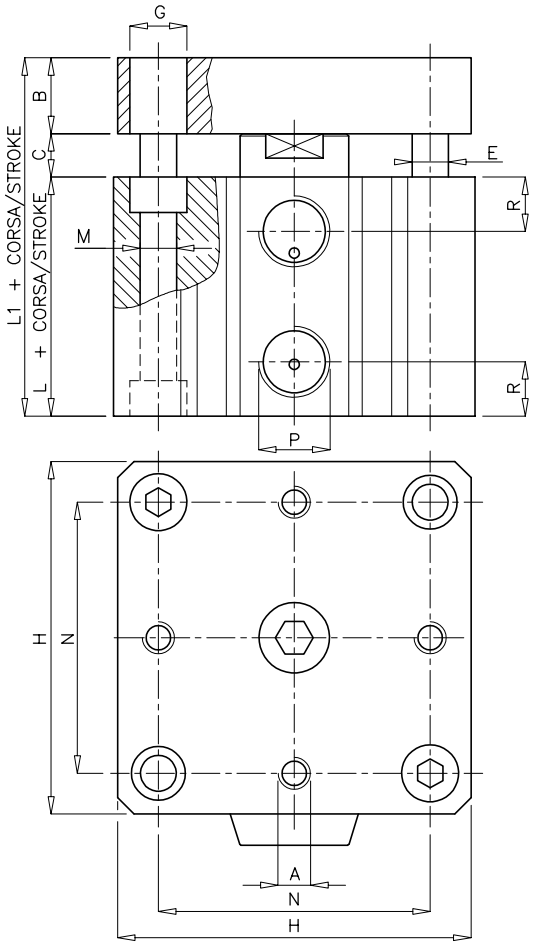
VERSIONE STANDARD codice. **361.10** Ø.corsa
STANDARD VERSION *code.* ***361.10*** *Ø.stroke*

ALESAGGIO *BORE*	CORSA *STROKE*	A	C	Ch	D	H	I	L	L1	M	N	P	Q
20	≤ 100	M 5 x 8	4,5	8	10	36	38	35	44	4,2	25,5	M 5	6
25	≤ 100	M 6 x 10	5	10	12	41	43	38	48	5,15	28	M 5	7
32	≤ 100	M 8 x 11	7	14	16	47,5	50	38	52	5,15	34	1/8"	7,5
40	≤ 100	M 8 x 11	7	14	16	56,5	59	50	64	6,7	40	1/8"	7,5
50	≤ 100	M 10 x 14	8	17	20	66,5	71,5	51	67	6,7	50	1/4"	9
63	≤ 100	M 10 x 14	8	17	20	80	85	51	67	8,5	60	1/4"	11
80	≤ 100	M 16 x 20	10	22	25	99,5	104	64	84	10,25	77	3/8"	11,5
100	≤ 100	M 20 x 25	12	27	30	120	125	73	97	10,25	94	3/8"	13

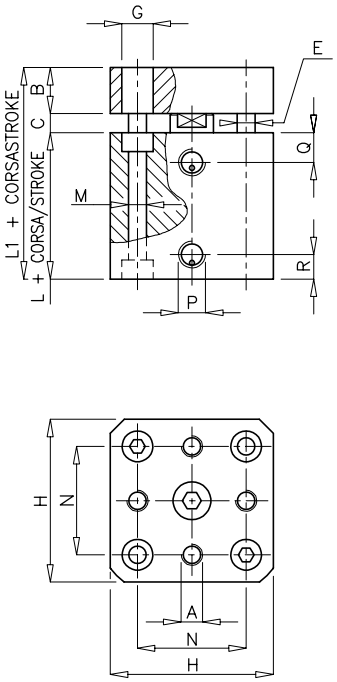


ANTIROTANTE DOPPIO EFFETTO
DOUBLE ACTING NON-ROTATING

alesaggio/*bore* 20 - 100



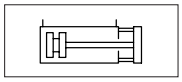
alesaggio/*bore* 12,16



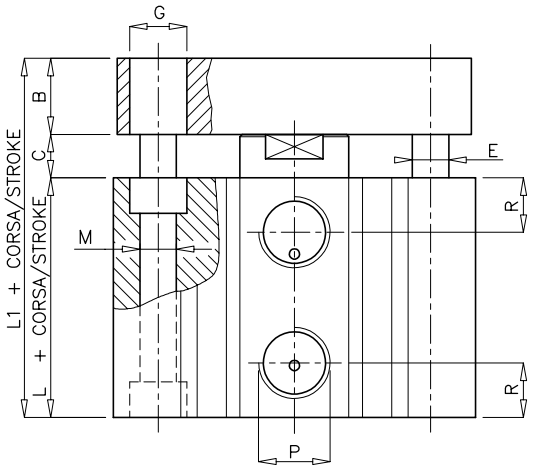
VERSIONE STANDARD codice. **362.00** Ø.corsa
STANDARD VERSION *code.* ***362.00*** *Ø.stroke*

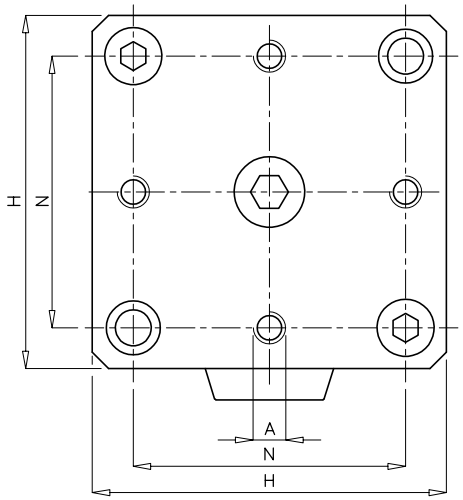
ALESAGGIO *BORE*	CORSA *STROKE*	A	B	C	E	G	H	L	L1	M	N	P	Q	R
12	≤ 30	M 3	8,5	3,5	5	6	25	17	29	3,3	15,5	M 5	5	5
16	≤ 30	M 3	8,5	3,5	5	6	30	19	31	3,3	20	M 5	6,5	5,5
20	≤ 50	M 4	11,5	4,5	6	7,5	35	20	36	4,2	25,5	M 5	-	6
	> 50 ≤ 100							30	46					
25	≤ 50	M 5	11	5	6	9	40	23	39	5,15	28	M 5	-	7
	> 50 ≤ 100							33	49					
32	≤ 50	M 5	13	7	8	9	45	23	43	5,15	34	M 5 *	-	6 *
	> 50 ≤ 100							33	53			1/8" **		7,5 **
40	≤ 50	M 6	13	7	10	10,5	55	30	50	6,7	40	1/8"	-	7,5
	> 50 ≤ 100							40	60					
50	≤ 50	M 6	14	8	10	10,5	65	31	53	6,7	50	1/4"	-	9
	> 50 ≤ 100							41	63					
63	≤ 50	M 8	14	8	12	13,5	80	36	58	8,5	60	1/4"	-	11
	> 50 ≤ 100							46	68					
80	≤ 50	M 8	16	10	14	17	100	44	70	10,25	77	3/8"	-	11,5
	> 50 ≤ 100							54	80					
100	≤ 50	M 10	18	12	14	17	120	53	83	10,25	94	3/8"	-	13
	> 50 ≤ 100							63	93					

* Per corse < 10 / *For strokes < 10*
** Per corse ≥ 10 / *For strokes ≥ 10*



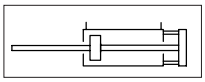
ANTIROTANTE DOPPIO EFFETTO MAGNETICO
DOUBLE ACTING MAGNETIC NON-ROTATING



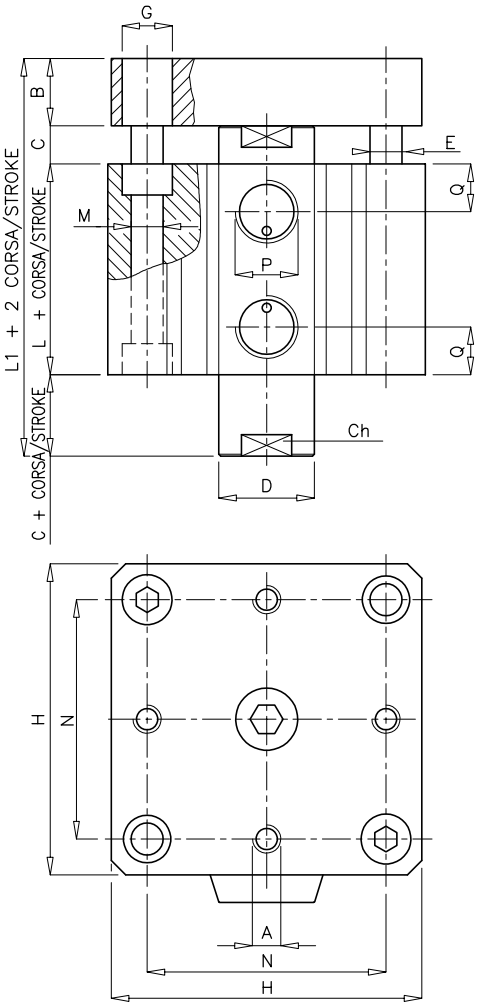


VERSIONE STANDARD codice. **362.10** Ø.corsa
STANDARD VERSION *code.* ***362.10*** *Ø.stroke*

ALESAGGIO *BORE*	CORSA *STROKE*	A	B	C	E	G	H	L	L1	M	N	P	R
20	≤ 100	M 4	11,5	4,5	6	7,5	35	30	46	4,2	25,5	M 5	6
25	≤ 100	M 5	11	5	6	9	40	33	49	5,15	28	M 5	7
32	≤ 100	M 5	13	7	8	9	45	33	53	5,15	34	1/8"	7,5
40	≤ 100	M 6	13	7	10	10,5	55	40	60	6,7	40	1/8"	7,5
50	≤ 100	M 6	14	8	10	10,5	65	41	63	6,7	50	1/4"	9
63	≤ 100	M 8	14	8	12	13,5	80	46	68	8,5	60	1/4"	11
80	≤ 100	M 8	16	10	14	17	100	54	80	10,25	77	3/8"	11,5
100	≤ 100	M 10	18	12	14	17	120	63	93	10,25	94	3/8"	13

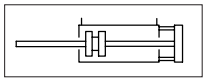


ANTIROTANTE STELO PASSANTE DOPPIO EFFETTO
DOUBLE ACTING NON-ROTATING DOUBLE PISTON ROD

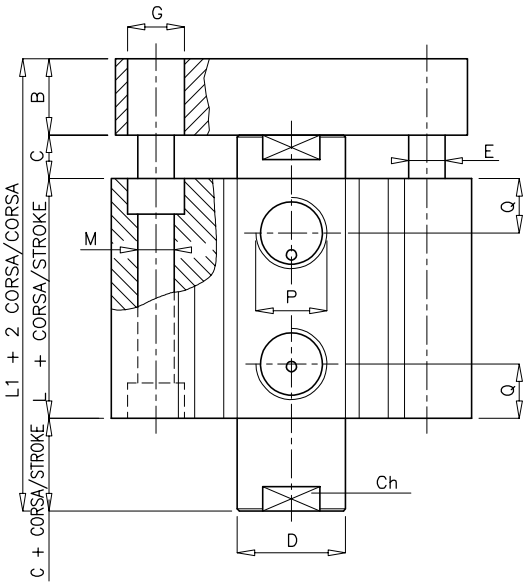


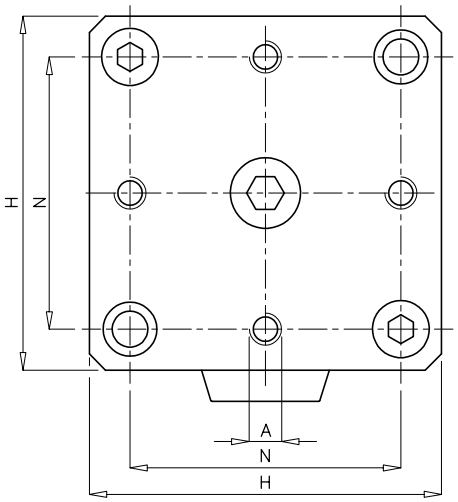
VERSIONE STANDARD codice. **363.00** Ø.corsa
STANDARD VERSION *code.* ***363.00*** *Ø.stroke*

ALESAGGIO *BORE*	CORSA *STROKE*	A	B	C	Ch	D	E	G	H	L	L1	M	N	P	Q
20	≤ 100	M 4	11,5	4,5	8	10	6	7,5	35	25	45,5	4,2	25,5	M 5	6
25	≤ 100	M 5	11	5	10	12	6	9	40	28	49	5,15	28	M 5	7
32	≤ 100	M 5	13	7	14	16	8	9	45	28	55	5,15	34	1/8"	7,5
40	≤ 100	M 6	13	7	14	16	10	10,5	55	40	67	6,7	40	1/8"	7,5
50	≤ 100	M 6	14	8	17	20	10	10,5	65	41	71	6,7	50	1/4"	9
63	≤ 100	M 8	14	8	17	20	12	13,5	80	41	71	8,5	60	1/4"	11
80	≤ 100	M 8	16	10	22	25	14	17	100	54	90	10,25	77	3/8"	11,5
100	≤ 100	M 10	18	12	27	30	14	17	120	63	105	10,25	94	3/8"	13



ANTIROTANTE STELO PASSANTE DOPPIO EFFETTO MAGNETICO
DOUBLE ACTING MAGNETIC NON-ROTATING DOUBLE PISTON ROD

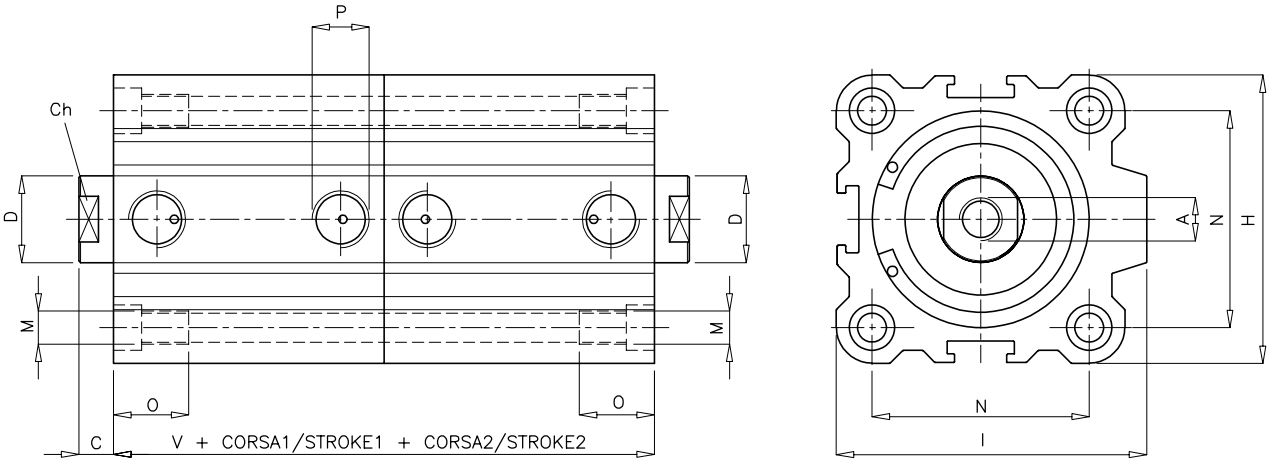




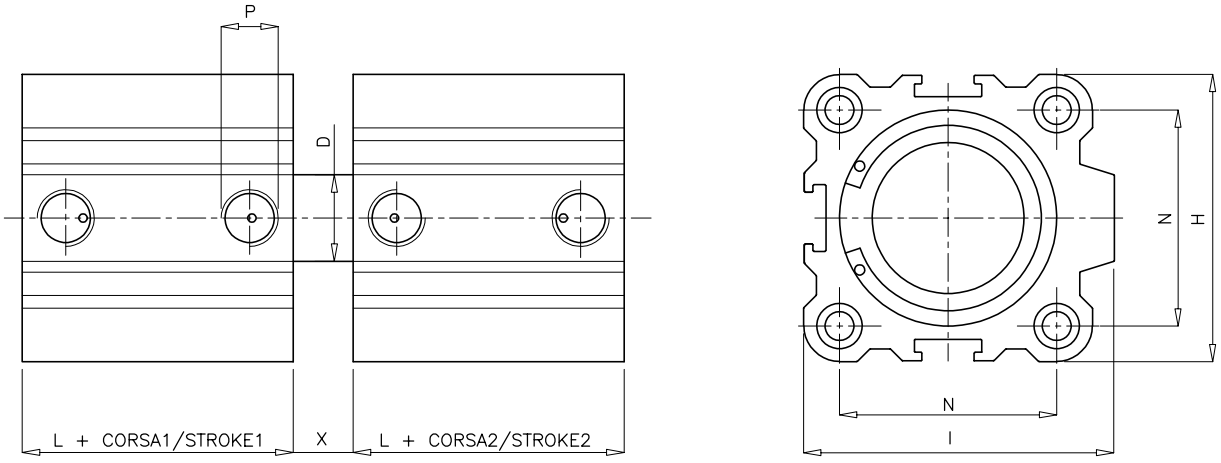
VERSIONE STANDARD codice. **363.10** Ø.corsa
STANDARD VERSION *code.* ***363.10*** *Ø.stroke*

ALESAGGIO *BORE*	CORSA *STROKE*	A	B	C	Ch	D	E	G	H	L	L1	M	N	P	Q
20	≤ 100	M 4	11,5	4,5	8	10	6	7,5	35	35	55,5	4,2	25,5	M 5	6
25	≤ 100	M 5	11	5	10	12	6	9	40	38	59	5,15	28	M 5	7
32	≤ 100	M 5	13	7	14	16	8	9	45	38	65	5,15	34	1/8"	7,5
40	≤ 100	M 6	13	7	14	16	10	10,5	55	50	77	6,7	40	1/8"	7,5
50	≤ 100	M 6	14	8	17	20	10	10,5	65	51	81	6,7	50	1/4"	9
63	≤ 100	M 8	14	8	17	20	12	13,5	80	51	81	8,5	60	1/4"	11
80	≤ 100	M 8	16	10	22	25	14	17	100	64	100	10,25	77	3/8"	11,5
100	≤ 100	M 10	18	12	27	30	14	17	120	73	115	10,25	94	3/8"	13

Cilindri corsa breve doppi
Short stroke double cylinders

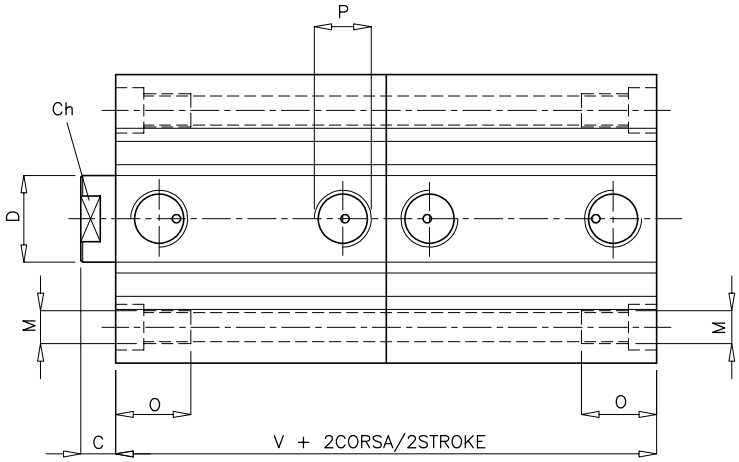


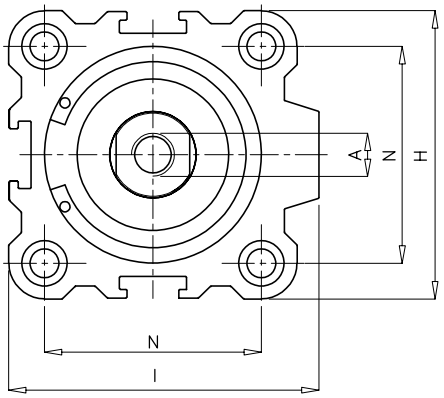
CILINDRO DOPPIO (STELI CONTRAPPOSTI) codice. **365.1.0** Ø.corsa totale*
DOUBLE CYLINDER (OPPOSITE PISTON RODS) *code.* ***365.1.0*** *Ø.overall stroke**
* In fase di ordinazione indicare sempre le due corse separatamente / *When ordering always indicate the two strokes separately*



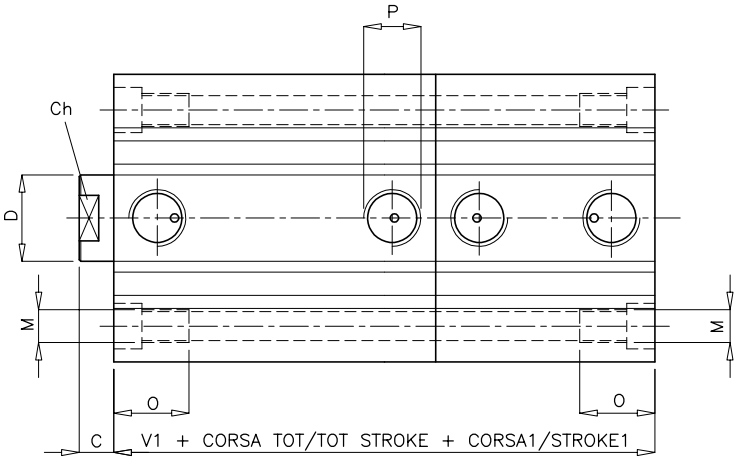
CILINDRO DOPPIO (STELO UNICO) codice. **366.1.0** Ø.corsa totale*
DOUBLE CYLINDER (SINGLE PISTON ROD) *code.* ***366.1.0*** *Ø.overall stroke**
* In fase di ordinazione indicare sempre le due corse separatamente / *When ordering always indicate the two strokes separately*

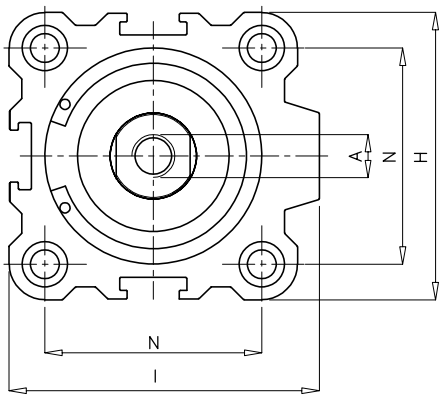
ALESAGGIO *BORE*	A	C	Ch	D	H	I	L	M	N	O	P	V	X
20	M 5 x 8	4,5	8	10	36	38	30	M 4	25,5	11	M 5	60	8
25	M 6 x 10	5	10	12	41	43	33	M 4	28	11	M 5	66	10
32	M 8 x 11	7	14	16	47,5	50	33	M 5	34	13	1/8"	66	12
40	M 8 x 11	7	14	16	56,5	59	40	M 5	40	13	1/8"	80	13
50	M 10 x 14	8	17	20	66,5	71,5	41	M 6	50	15	1/4"	82	15
63	M 10 x 14	8	17	20	80	85	46	M 6	60	15	1/4"	92	15
80	M 16 x 20	10	22	25	99,5	104	54	M 8	77	17	3/8"	108	16
100	M 20 x 25	12	27	30	120	125	63	M 8	94	17	3/8"	126	20





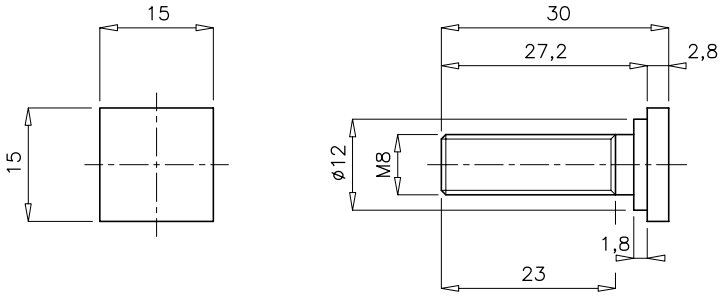
MOLTIPLICATORE DI FORZA (TANDEM)* codice. **367.1.0** Ø.corsa
HIGH POWER CYLINDER (TANDEM)* *code.* ***367.1.0*** *Ø.stroke*
*A richiesta ulteriori camere di spinta / *Further thrust chambers available on request*





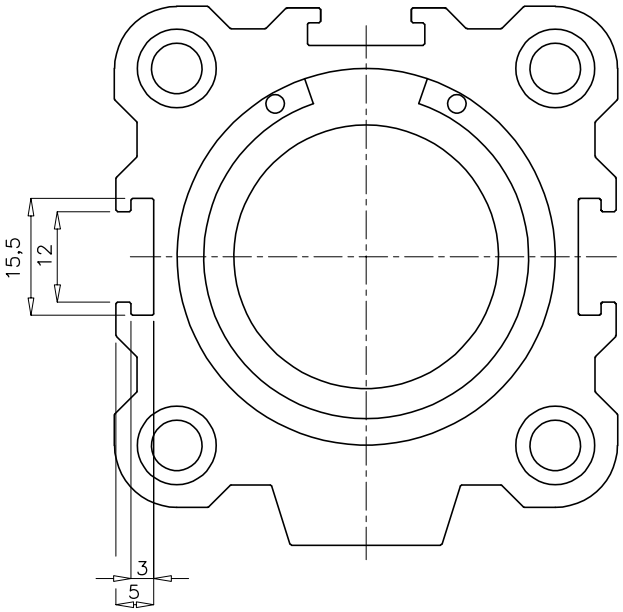
STAZIONI MULTIPLE* codice. **368.1.0** Ø.corsa tot**
MULTIPOSITION CYLINDER* *code.* ***368.1.0*** *Ø.overall stroke* **
* A richiesta ulteriori stazioni / *Further stations on request*
** In fase di ordinazione indicare anche la corsa della 1ª stazione / *When ordering also indicate the 1st station stroke*

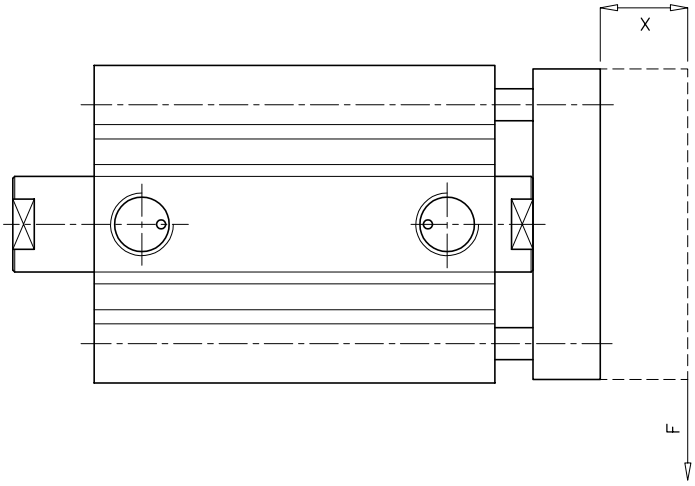
ALESAGGIO *BORE*	A	C	Ch	D	H	I	M	N	O	P	V	V1
20	M 5 x 8	4,5	8	10	36	38	M 4	25,5	11	M 5	60	65
25	M 6 x 10	5	10	12	41	43	M 4	28	11	M 5	66	71
32	M 8 x 11	7	14	16	47,5	50	M 5	34	13	1/8"	66	76
40	M 8 x 11	7	14	16	56,5	59	M 5	40	13	1/8"	80	90
50	M 10 x 14	8	17	20	66,5	71,5	M 6	50	15	1/4"	82	92
63	M 10 x 14	8	17	20	80	85	M 6	60	15	1/4"	92	102
80	M 16 x 20	10	22	25	99,5	104	M 8	77	17	3/8"	108	118
100	M 20 x 25	12	27	30	120	125	M 8	94	17	3/8"	126	136

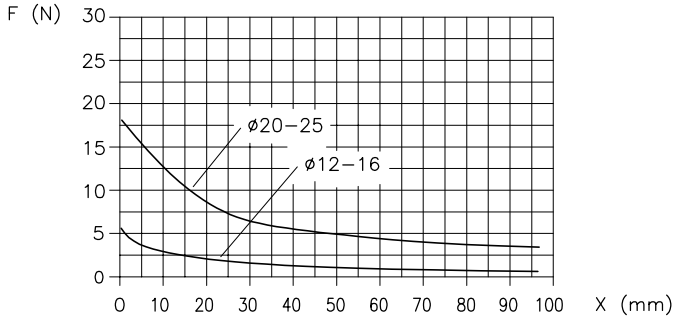


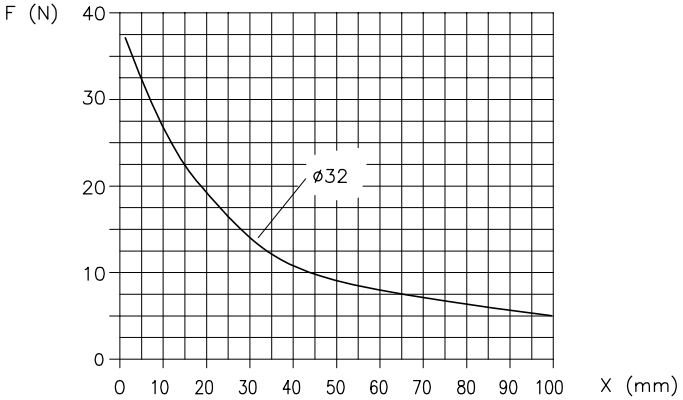
VITE DI FISSAGGIO SU CANALE (consigliabile fino al alesaggio 63) codice. **369.03.020**
SLOT FIXING SCREW (advisable until bore 63) *code.* ***369.03.020***

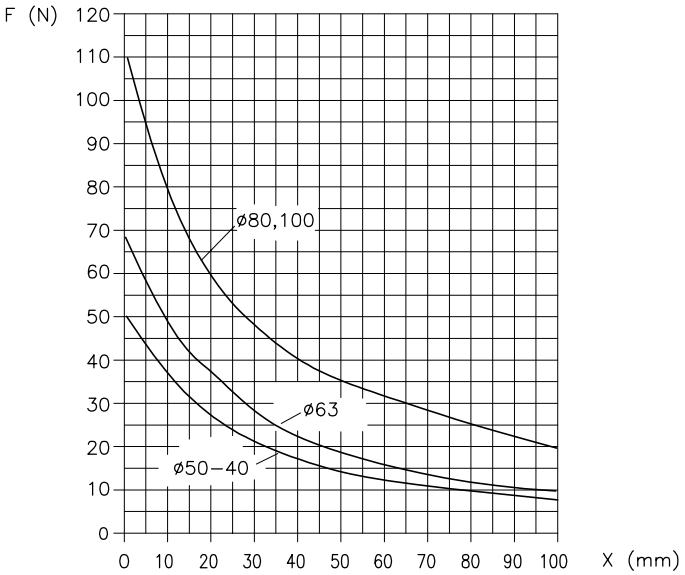
CANALI PROFILI ALESAGGIO DA 20 A 100
SLOTS PROFILES BORES FROM 20 TO 100




X
F


F (N)
30
25
20
15
10
5
0
ø20–25
ø12–16
0 10 20 30 40 50 60 70 80 90 100
X (mm)


F (N)
40
30
20
10
0
ø32
0 10 20 30 40 50 60 70 80 90 100
X (mm)


F (N)
120
110
100
90
80
70
60
50
40
30
20
10
0
ø80,100
ø63
ø50–40
0 10 20 30 40 50 60 70 80 90 100
X (mm)

CARATTERISTICHE TECNICHE

I cilindri oleopneumatici serie 341 sono formati da un cilindro pneumatico motore avente all'interno dello stelo un dispositivo di controllo idraulico di velocità con deceleratori fissi di finecorsa nei due sensi.

alesaggi ..... 50 - 63 - 80 - 100
fissaggi ..... come cilindri ISO 15552 (solo posteriori)
versioni ..... regolazione in uscita - regolazione in entrata - doppia regolazione - regolatore incorporato o a pannello - plurigiro o monogiro - (pistone magnetico su richiesta)

Tutte le versioni sono disponibili con dispositivi di controllo pneumatico: avvicinamento rapido (**SKIP**), arresto normalmente aperto (**STOP NA**), arresto normalmente chiuso (**STOP NC**). Su richiesta dispositivi elettrici.

CARATTERISTICHE FUNZIONALI

fluido (controllo idraulico)..... olio idraulico a viscosità costante ISO VG 37 cSt a 40°C t° -40°C ÷ +80°C
fluido (controllo pneumatico)... aria filtrata con o senza lubrificazione
pressione max. ..... 10 bar
temperatura ..... 0°C ÷ 80°C (-20°C con aria secca)

VALORI DI VELOCITA' (6 bar)

Velocità minima controllata (monogiro) .....V min. = 200 mm/min
Velocità minima controllata (plurigiro).....V min. = 40 mm/min
Velocità massima controllata .....V max. = 6 m/min (con regolatore incorporato)
Velocità di ritorno rapido .....V = 20 m/min

CARATTERISTICHE COSTRUTTIVE

testate ..... in lega di alluminio anodizzato
camicia ..... in lega di alluminio estruso calibrato e ossidato duro interno - esterno
stelo ..... tubo in acciaio ST 37 lucido interno cromato esterno
pistone ..... in lega di alluminio
boccola guida stelo ..... autolubrificante
guarnizioni (cilindro pneumatico)..... in gomma NBR
guarnizioni (controllo idraulico)..... in poliuretano

LEGENDA CODICI

341 . □ . □ . □ . Ø .corsa . □

1 - regolazione in uscita
2 - regolazione in entrata
3 - doppia regolazione
4 - regolazione in uscita a pannello
5 - regolazione in entrata a pannello
6 - doppia regolazione a pannello
7 - regolazione in uscita monogiro a pannello
8 - regolazione in entrata monogiro a pannello
9 - doppia regolazione monogiro a pannello

0 - senza skip
1 - skip in uscita
2 - skip in entrata
3 - doppio skip

0 - senza stop
1 - stop NA in uscita
2 - stop NA in entrata
3 - stop NC in uscita
4 - stop NC in entrata
5 - doppio stop NA
6 - doppio stop NC

L - camicia profilo Mickey-mouse non magnetico
M - camicia profilo Mickey-mouse magnetico
P - camicia profilo quadro non magnetico
R - camicia profilo quadro magnetico

TECHNICAL CHARACTERISTICS

Oil-pneumatic cylinders series 341 are formed by a motor pneumatic cylinder, inside the piston rod there is hydraulic speed control device with fixed limit switch decelerators in the two directions.

bores ..... *50 - 63 - 80 - 100*
fixings ..... *as for cylinders ISO 15552 (only rear)*
versions ..... *out-stroke regulation - in-stroke regulation - double regulation - incorporated regulator or panel regulator - multi-turn or single-turn regulation - (magnetic piston on request)*

*All the versions are available with the following pneumatic control devices: rapid nearing (**SKIP**), normally open stop (**STOP NO**), normally closed stop (**STOP NC**). Electrical control devices on request.*

FUNCTIONING CHARACTERISTICS

fluid (hydraulic control)..... *hydraulic oil with constant viscosity ISO VG 37 cSt at 40°C t° -40°C ÷ +80°C*
fluid (pneumatic control)..... *filtered air with or without lubrication*
max. pressure ..... *10 bar*
temperature ..... *0°C ÷ 80°C (-20°C with dry air)*

SPEED MEASUREMENTS (6 bars)

Minimum controlled speed (single-turn regulator).... *min. speed = 200 mm/min*
Minimum controlled speed (multi-turn regulation).... *min. speed = 40 mm/min*
Maximum controlled speed ..... *max. speed = 6 m/min (with incorporated regulator)*
Rapid return speed ..... *S = 20 m/min*

MANUFACTURING CHARACTERISTICS

end covers ..... *oxidised aluminium alloy*
tube ..... *extruded calibrated and oxidised aluminium alloy hard interior - exterior*
piston rod ..... *tube in steel ST 37 shiny interior chromed exterior*
piston ..... *aluminium alloy*
piston rod guide bush ..... *self-lubricating*
seals (pneumatic cylinder) ..... *rubber NBR*
seals (hydraulic control) ..... *polyurethane*

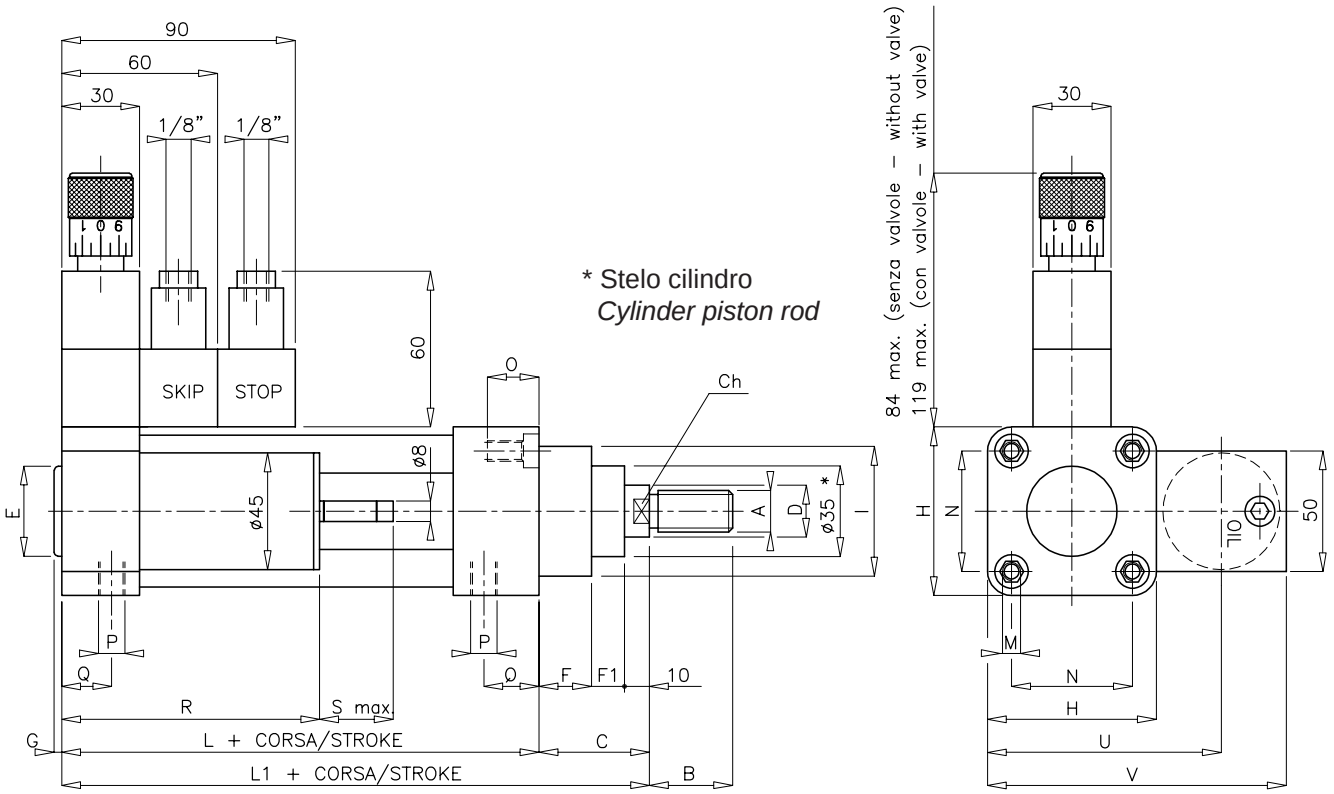
CODE LEGEND

341 . ☐ . ☐ . ☐ . Ø .stroke . ☐

- ☐ (1st): *1 - out-stroke regulation; 2 - in-stroke regulation; 3 - double regulation; 4 - out-stroke regulation - panel; 5 - in-stroke regulation - panel; 6 - double regulation - panel; 7 - out-stroke regulation single turn on panel; 8 - in-stroke regulation single turn on panel; 9 - double regulation single turn on panel*
- ☐ (2nd): *0 - without skip; 1 - out-stroke skip; 2 - in-stroke skip; 3 - double skip*
- ☐ (3rd): *0 - without stop; 1 - out-stroke stop NO; 2 - in-stroke stop NO; 3 - out-stroke stop NC; 4 - in-stroke stop NC; 5 - double stop NO; 6 - double stop NC*
- ☐ (4th): *L - non magnetic tube Mickey-mouse profile; M - magnetic tube Mickey-mouse profile; P - non magnetic tube square profile; R - magnetic tube square profile*

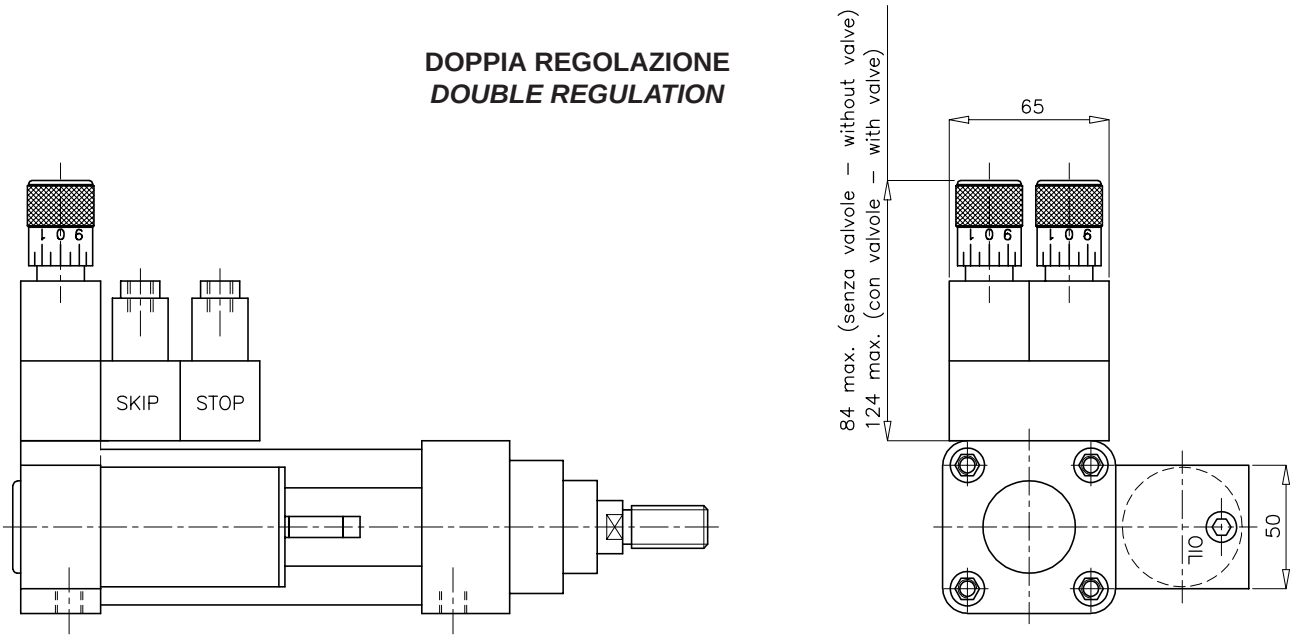
Cilindri oleopneumatici
Oil-pneumatic cylinders

REGOLAZIONE IN USCITA/ENTRATA STELO
OUTWARD/INWARD STROKE REGULATION



* Stelo cilindro
Cylinder piston rod

DOPPIA REGOLAZIONE
DOUBLE REGULATION

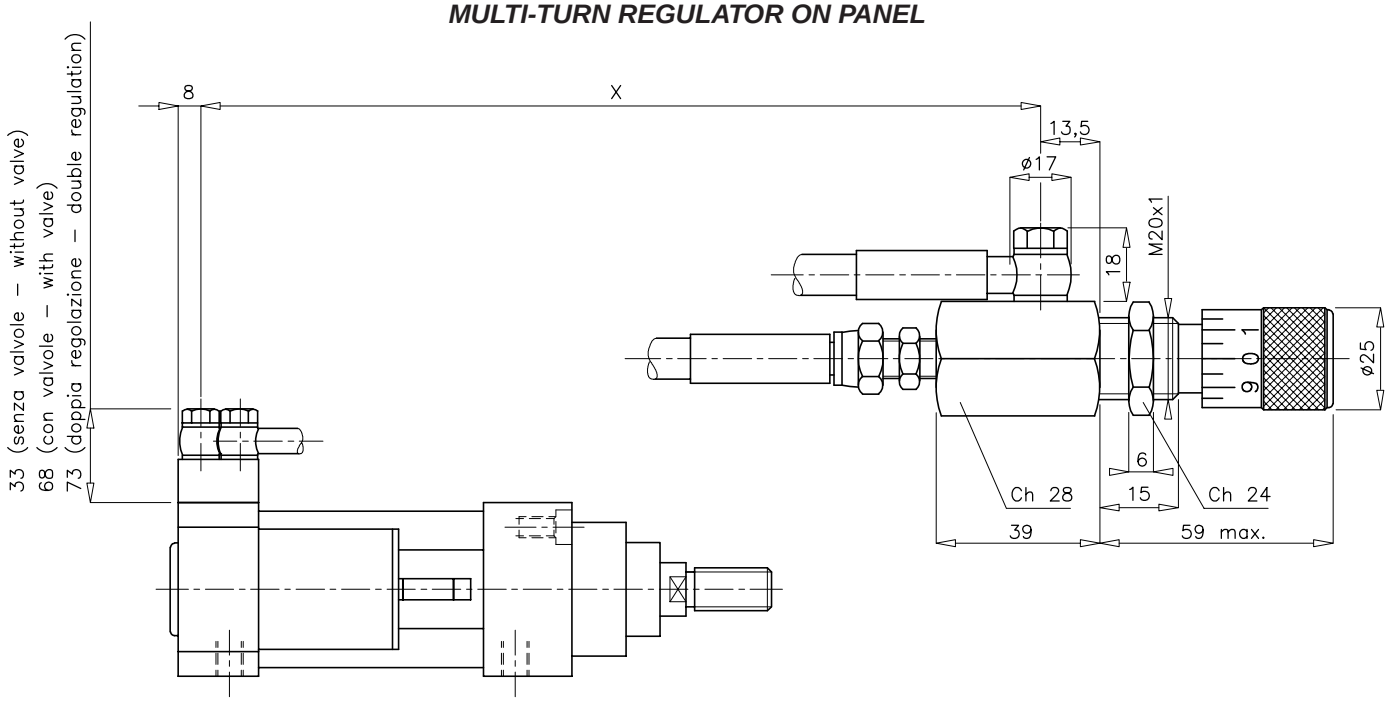


CORSA *STROKE*	R	S max.
> 0 ≤ 100	119	26
> 100 ≤ 200	156	46
> 200 ≤ 300	201	70
> 300 ≤ 500	274	105

Le posizioni del serbatoio e del regolatore possono essere scelte secondo le esigenze del cliente.
Tank and regulator position may be chosen according to costumer request.

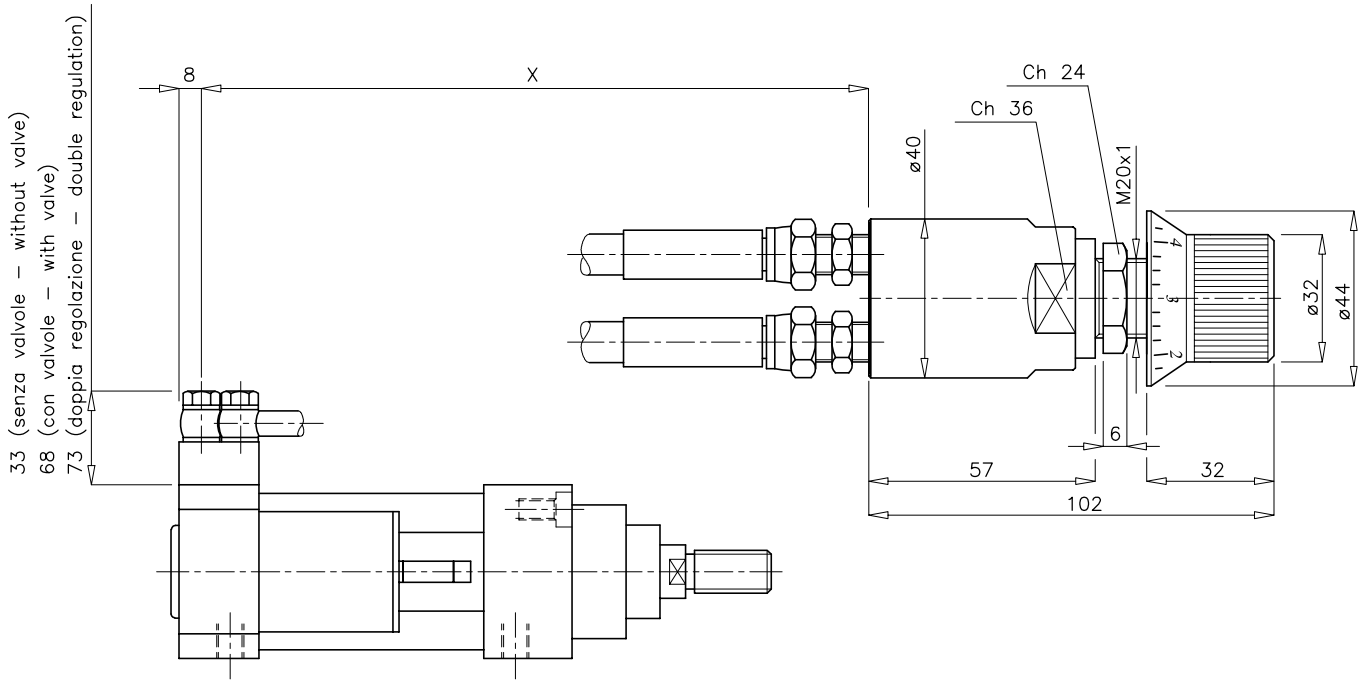
ALESAGGIO *BORE*	A	B	C	Ch	D	E	F	F1	G	H	I	L	L1	M	N	O	P	Q	U	V
50	M16x1,5	32	43	17	20	40	20	13	3	65	50	104	147	M8	46,5	17	1/8"	18	90	115
63	M16x1,5	32	43	17	20	45	20	13	4	75	50	104	147	M8	56,5	17	1/4"	18	100	125
80	M20x1,5	40	33	20	25	45	15	8	4	95	50	129	162	M10	72	24	3/8"	25	120	145
100	M20x1,5	40	33	20	25	55	10	13	5	115	55	129	162	M10	89	24	3/8"	25	140	165

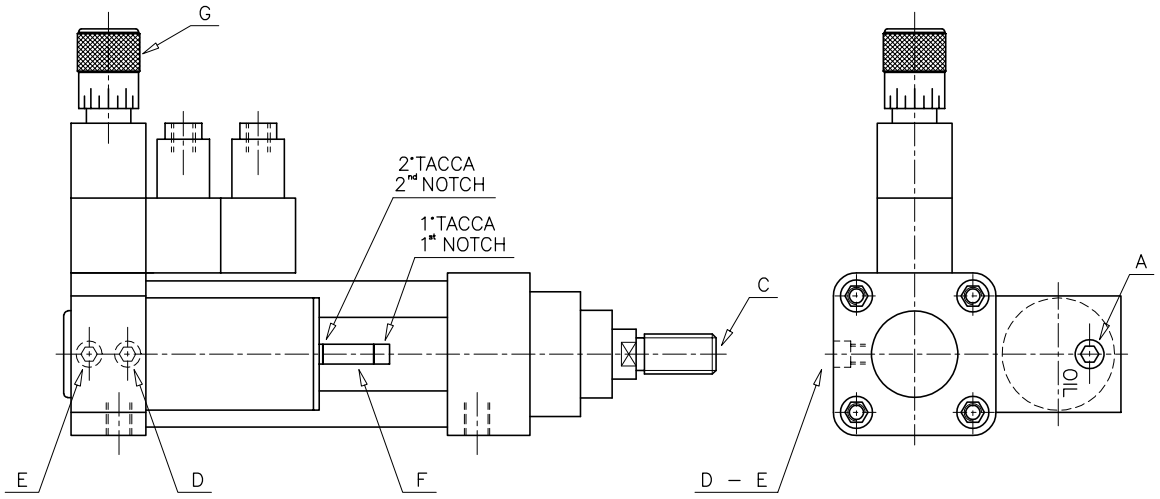
REGOLATORE A PANNELLO PLURIGIRO
MULTI-TURN REGULATOR ON PANEL



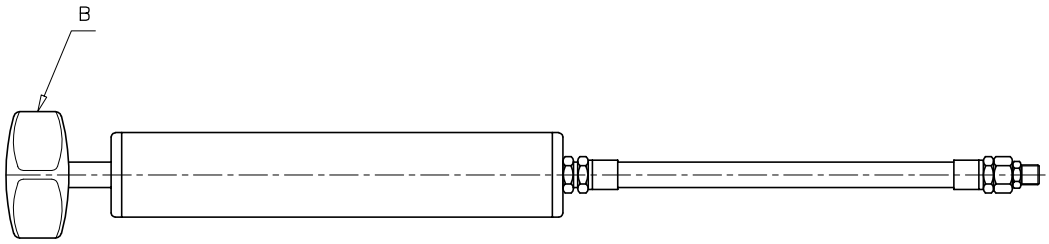
In fase di ordinazione specificare la quota X.
When ordering indicate the X length.

REGOLATORE A PANNELLO MONOGIRO
SINGLE-TURN REGULATOR ON PANEL





cilindro oleopneumatico



pompa di caricamento

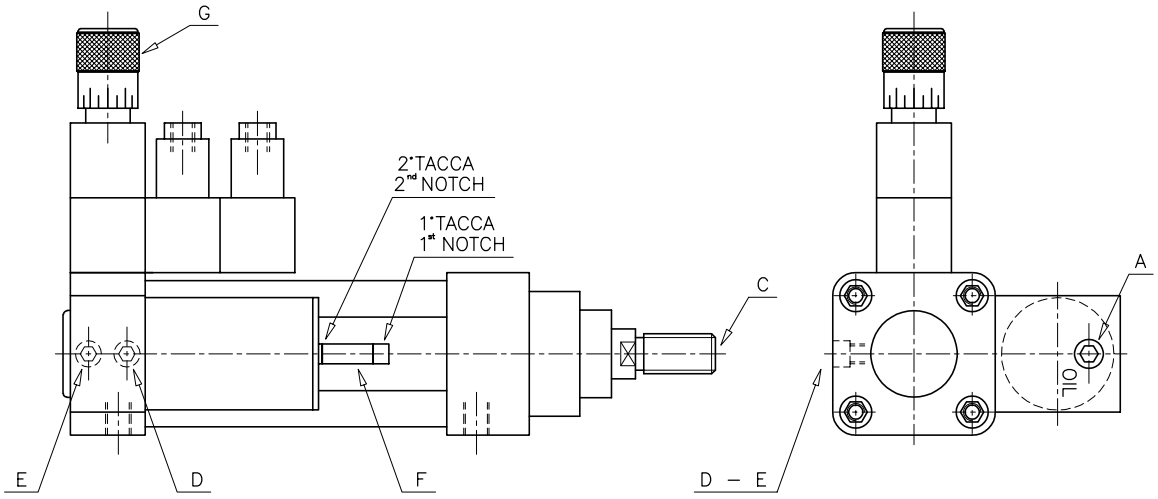
ISTRUZIONI PER IL CARICAMENTO E RICAMBIO COMPLETO DI OLIO

Smontare il cilindro dalla macchina e svuotarlo completamente dopo aver svitato i tappi **D** - **E**. Svitare il tappo **A** della valvola di ricarica ed avvitare il beccuccio maschio della pompa di caricamento. Assicurarsi che il pomello **G** del regolatore di flusso sia in posizione tutto aperto.
Inclinare il cilindro con la parte posteriore e gli spurghi **D** - **E** verso l'alto, estrarre completamente lo stelo quindi pompare l'olio avvitando il volantino **B**. L'operazione va eseguita chiudendo il tappo **E** e spurgando l'aria dal foro **D**, subito dopo chiudere il tappo **D** e spurgare dal foro **E**. Terminate queste operazioni chiudere entrambi i fori.
Posizionare il cilindro in verticale con lo stelo verso l'alto completamente estratto e svitare il tappo **C**. Continuare ad immettere l'olio fino a farlo uscire dal foro **C**, quindi chiudere appena finito di spurgare l'aria.
Far rientrare completamente lo stelo all'interno del cilindro e immettere olio finché l'asta di livello **F** non mostra la 2ª tacca.

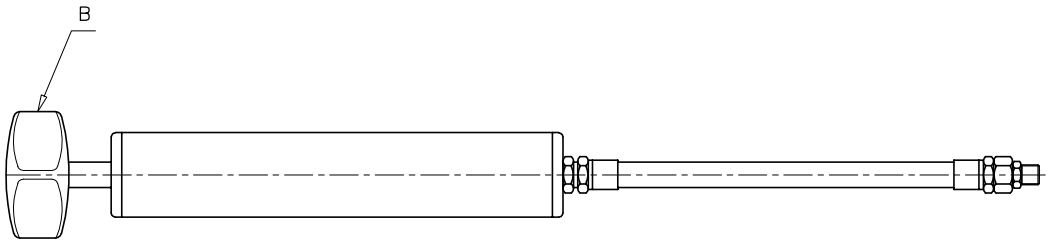
ISTRUZIONI PER LA RICARICA

Svitare il tappo **A** ed avvitare il beccuccio maschio della pompa di caricamento nell'apposita valvola di ricarica.
Immettere l'olio avvitando il volantino **B** finché l'asta di livello **F** non mostra la 2ª tacca.

N.B. : Per una corretta manutenzione è consigliabile effettuare l'operazione di ricarica quando, con lo stelo del cilindro tutto fuori, l'asta di livello **F** non entra oltre la prima tacca.



oleopneumatic cylinder



loading pump

FILLING AND COMPLETE OIL CHANGE INSTRUCTIONS

*Remove the cylinder from the machine, loosen caps **D** - **E** and empty it completely. Remove cap **A** and screw the pump nozzle to the non-return valve, ensure that flow regulator handwheel **G** is in the fully open position. Tilt the cylinder with the rear part and the **D** - **E** dump valves upwards, completely remove the piston rod then pump the oil tightening the handwheel **B**. The operation must be done closing cap **E** and removing the air from hole **D**, immediately afterwards close cap **D** and bleed from hole **E**. Once these operations are done, close both holes.*
*Position the cylinder vertically with the piston rod aiming upwards completely extended and unscrew cap **C**. Continue adding oil until it exits from hole **C**, and then close as soon as the air has been removed.*
*Slide the piston rod rear into the cylinder and add oil until it reaches the 2nd notch on the level rod **F**.*

RECHARGING INSTRUCTIONS

*Loosen cap **A** and screw on the recharge pump male spout screw cap into the recharge valve.*
*Add oil screwing the handwheel **B** until it reaches the 2nd notch on the level rod **F**.*

***N.B.** : For a correct maintenance it is advisable to carry out recharging operations when the level bar **F** does not go over the first notch once the regulator piston rod is fully extended.*

CARATTERISTICHE TECNICHE

Le unità oleopneumatiche della serie 340 sono formate da due cilindri in linea, uno posteriore pneumatico motore, l'altro idraulico a circuito chiuso con dispositivo per il controllo della velocità.

alesaggi ..... 40 - 50 - 63 - 80
versioni*..... regolazione in uscita stelo, regolazione in entrata stelo, doppia regolazione, (magnetico su richiesta)
fissaggi ..... sono previsti gli stessi fissaggi della serie 319 e 329

* Tutte le versioni sono disponibili con i dispositivi di controllo pneumatico: avvicinamento rapido (**SKIP**), arresto normalmente aperto (**STOP**), arresto normalmente chiuso (**STOP-NC**). Su richiesta dispositivi elettrici.

CARATTERISTICHE FUNZIONALI

fluido camera anteriore ..... olio idraulico a viscosità costante ISO VG 37 cSt a 40°C t° -40°C ÷ +80°C
fluido camera posteriore ..... aria filtrata e lubrificata
pressione max. ..... 10 bar
temperatura ..... 0°C ÷ 80°C (-20°C con aria secca)
velocità controllata ..... min. 40 mm/min max 12 m/min (alesaggio 40 ÷ 50)
min. 40 mm/min max 5 m/min (alesaggio 63 ÷ 80)

CARATTERISTICHE COSTRUTTIVE

testate ..... in lega di alluminio (ox. nero)
camicia anteriore ..... alluminio ox. duro
camicia posteriore ..... alluminio ox. duro
stelo ..... in acciaio C40 cromato
guarnizioni ..... in gomma antiolio NBR
guarnizione tenuta stelo ..... in poliuretano

LEGENDA CODICI

340 . □ . □ . □ . Ø .corsa . M

- □ (1ª): 1 - regolazione in uscita; 2 - regolazione in entrata; 3 - doppia regolazione
- □ (2ª): 0 - senza valvola skip; 1 - valvola skip in uscita; 2 - valvola skip in entrata; 3 - doppio skip
- □ (3ª): 0 - senza stop; 1 - valvola stop in uscita; 2 - valvola stop in entrata; 3 - valvola stop-nc in uscita; 4 - valvola stop-nc in entrata; 5 - doppio stop; 6 - doppio stop-nc
- M: magnetico su richiesta

TECHNICAL CHARACTERISTICS

Oil-pneumatic units series 340 includes two in-line cylinders, one is rear pneumatic motor, the other is a closed circuit hydraulic cylinder with speed control device.

bores ..... *40 - 50 - 63 - 80*
versions* ..... *piston rod exit regulation - piston rod entry regulation - double regulation (magnetic on request)*
fixings ..... *same fixings as for series 319 and 329*

** All versions are available with the following pneumatic control devices: rapid nearing (**SKIP**), normally open stop (**STOP**), normally closed stop (**STOP-NC**). Electrical control devices on request.*

FUNCTIONING CHARACTERISTICS

fluid front chamber ..... *constant viscosity hydraulic oil ISO VG 37 cSt at 40°C t° -40°C ÷ +80°C*
fluid rear chamber ..... *filtered and lubricated air*
max. pressure ..... *10 bar*
temperature ..... *0°C ÷ 80°C (-20°C with dry air)*
controlled speed ..... *min. 40 mm/min max 12 m/min (bore 40÷50)*
min. 40 mm/min max 5 m/min (bore 63÷80)

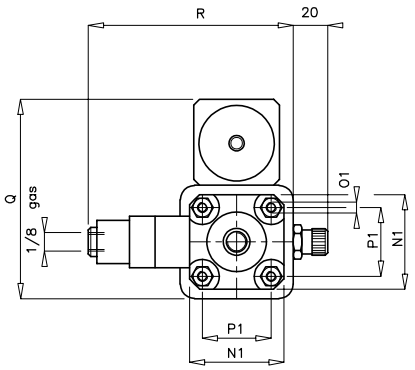
MANUFACTURING CHARACTERISTICS

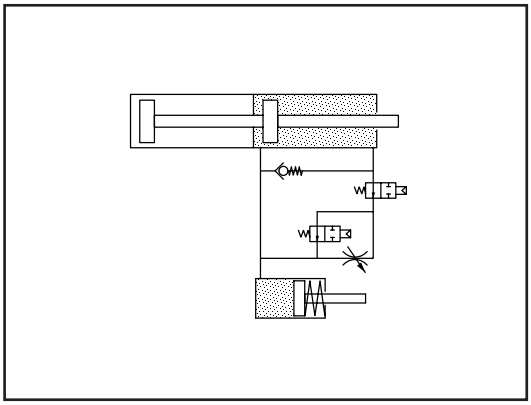
end covers ..... *aluminium alloy (oxid. black)*
front tube ..... *hard oxidised aluminium*
rear tube ..... *hard oxidised aluminium*
piston rod ..... *chromed C40 steel*
seals ..... *anti-oil rubber NBR*
piston rod seal..... *polyurethane*

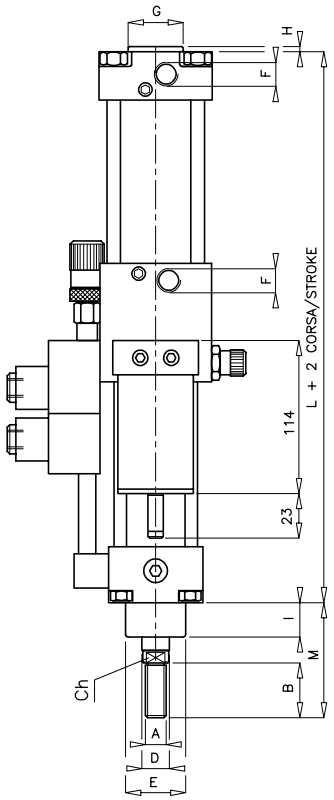
CODE LEGEND

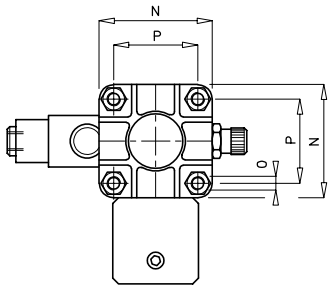
340 . □ . □ . □ . Ø .stroke . M

- □ (1st): *1 - out-stroke regulation; 2 - in-stroke regulation; 3 - double regulation*
- □ (2nd): *0 - without skip valve; 1 - out-stroke skip valve; 2 - in-stroke skip valve; 3 - double skip*
- □ (3rd): *0 - without stop; 1 - out-stroke stop valve; 2 - in-stroke stop valve; 3 - out-stroke stop-nc valve; 4 - in-stroke stop-nc valve; 5 - double stop; 6 - double stop-nc*
- M: *magnetic on request*



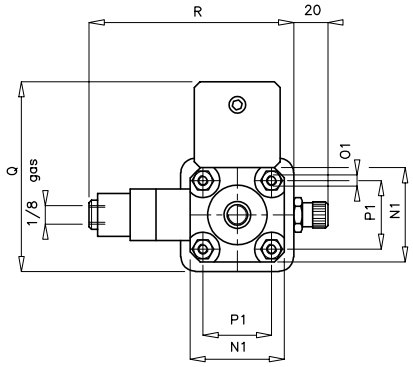


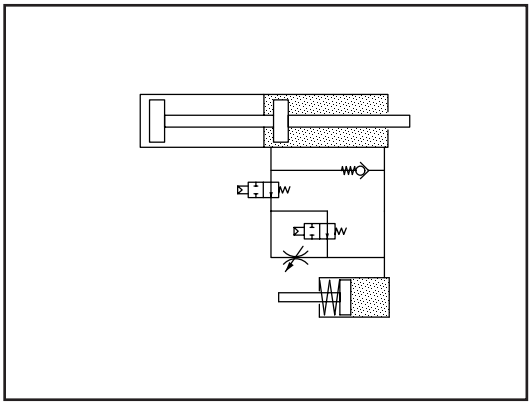


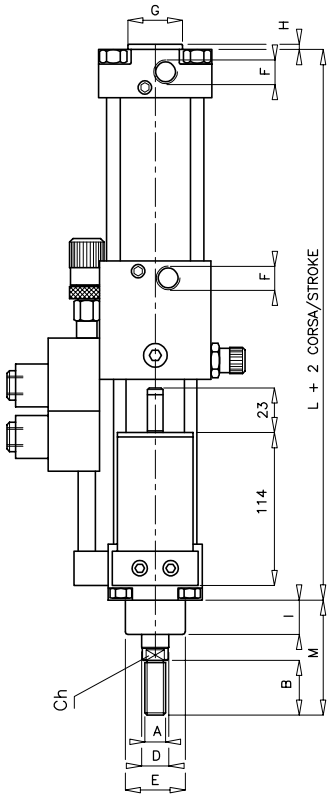


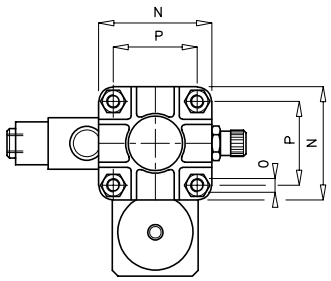
ALES. *BORE*	40	50	63	80
A	12x1,25	12x1,25	16x1,5	16x1,5
B	32	32	40	40
Ch	12	12	17	17
D	16	16	22	22
E	32	32	45	45
F	1/4"	1/4"	3/8"	3/8"
G	32	32	45	45
H	3	3	3	3
I	20	20	32	32
L	202	202	224	224
M	67	67	94	94
N	55	65	75	95
N1	55	55	75	75
O	M6	M8	M8	M10
O1	M6	M6	M8	M8
P	40	49	59	75
P1	40	40	59	59
Q	105	115	125	145
R	109	119	129	149

REGOLAZIONE IN USCITA, SKIP, STOP codice. **340.111** Ø.corsa
OUT-STROKE REGULATION, SKIP, STOP *code.* ***340.111*** *Ø.stroke*





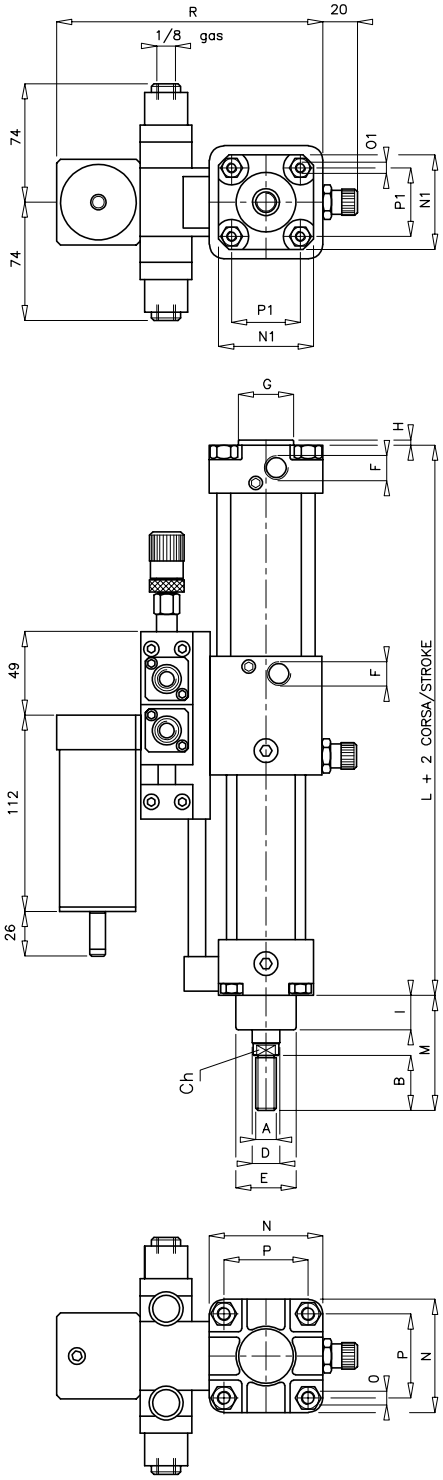


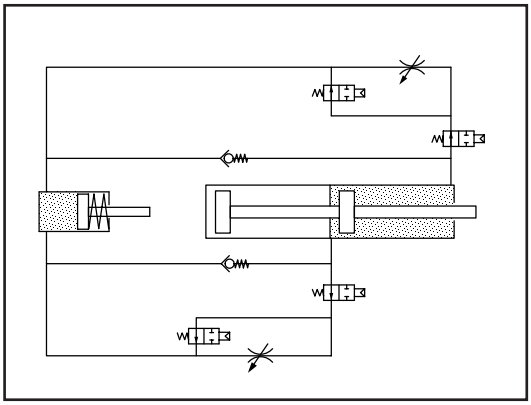


ALES. *BORE*	40	50	63	80
A	12x1,25	12x1,25	16x1,5	16x1,5
B	32	32	40	40
Ch	12	12	17	17
D	16	16	22	22
E	32	32	45	45
F	1/4"	1/4"	3/8"	3/8"
G	32	32	45	45
H	3	3	3	3
I	20	20	32	32
L	202	202	224	224
M	67	67	94	94
N	55	65	75	95
N1	55	55	75	75
O	M6	M8	M8	M10
O1	M6	M6	M8	M8
P	40	49	59	75
P1	40	40	59	59
Q	105	115	125	135
R	109	119	129	149

REGOLAZIONE IN ENTRATA, SKIP, STOP codice. **340.222** Ø.corsa
IN-STROKE REGULATION, SKIP, STOP *code.* ***340.222*** *Ø.stroke*

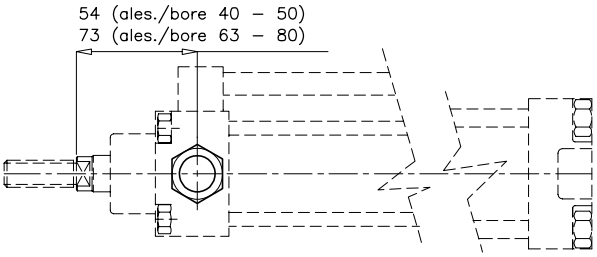
Unità oleopneumatiche
Oil-pneumatic units

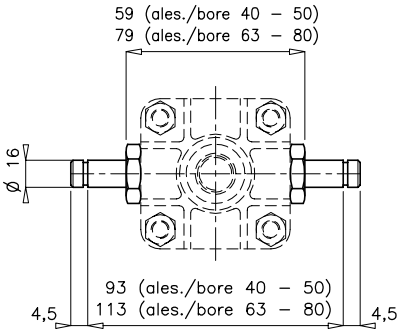




ALES. *BORE*	40	50	63	80
A	12x1,25	12x1,25	16x1,5	16x1,5
B	32	32	40	40
Ch	12	12	17	17
D	16	16	22	22
E	32	32	45	45
F	1/4"	1/4"	3/8"	3/8"
G	32	32	45	45
H	3	3	3	3
I	20	20	32	32
L	202	202	224	224
M	67	67	94	94
N	55	65	75	95
N1	55	55	75	75
O	M6	M8	M8	M10
O1	M6	M6	M8	M8
P	40	49	59	75
P1	40	40	59	59
R	145	155	165	185

DOPPIA REGOLAZIONE, DOPPIO SKIP, DOPPIO STOP codice. **340.335** Ø.corsa
DOUBLE REGULATION, DOUBLE SKIP, DOUBLE STOP *code.* ***340.335*** *Ø.stroke*





PERNI FULCRO codice. **349.09** Ø
FULCRUM PINS *code.* ***349.09*** Ø

Sono previsti: KIT GUARNIZIONI DI RICAMBIO
Also available: SPARE SEAL KITS

Altri accessori di fissaggio come serie 319 e 329.
Other fixing accessories as for series 319 and 329.

CARATTERISTICHE TECNICHE

Il regolatore idraulico della serie 330 è un dispositivo a circuito chiuso che, accoppiato con un cilindro pneumatico, permette di ottenere una velocità di avanzamento uniforme con regolazione di precisione.
Per accoppiamenti in parallelo è consigliabile scegliere il cilindro della **SERIE 310 CON PISTONE GUIDATO**.

versioni con serbatoio parallelo * .....regolazione in uscita stelo - regolazione in entrata stelo - doppia regolazione
versioni con serbatoio in linea * .....regolazione in uscita stelo
carico controllabile .....max. 800 Kg. (compresa l'inerzia della massa in movimento)
velocità controllata .....min. 40 mm/min max. 12 m/min
temperatura .....-10°C ÷ +80°C
fissaggi .....sono previsti gli stessi fissaggi della serie 309 e 319

* Tutte le versioni sono disponibili con i dispositivi di controllo pneumatico: avvicinamento rapido (**SKIP**), arresto normalmente aperto (**STOP**), arresto normalmente chiuso (**STOP-NC**). Su richiesta dispositivi elettrici.

CARATTERISTICHE COSTRUTTIVE

testate .....in lega di alluminio (ox. nero)
camicia .....in acciaio ST 37 levigata internamente (nichelata)
stelo .....in acciaio C45 cromato Ø16
guarnizioni .....in gomma antiolio
guarnizione tenuta stelo .....in poliuretano
olio .....idraulico a viscosità costante ISO VG 37 cSt a 40°C t° -40°C ÷ +80°C
alesaggio .....mm. 40
corse disponibili .....50 - 100 - 150 - 200 - 250 - 300 - 400 - 500

LEGENDA CODICI

□□□. □. □. □. 40 corsa

330 - con serbatoio in parallelo 331 - con serbatoio in linea	1 - regolazione in uscita 2 - regolazione in entrata 3 - doppia regolazione	0 - senza valvola skip 1 - valvola skip in uscita 2 - valvola skip in entrata 3 - doppio skip	0 - senza stop 1 - valvola stop in uscita 2 - valvola stop in entrata 3 - valvola stop-nc in uscita 4 - valvola stop-nc in entrata 5 - doppio stop 6 - doppio stop-nc

TECHNICAL CHARACTERISTICS

Hydraulic regulator series 330 is a closed-circuit device which, when coupled with a pneumatic cylinder allows to obtain uniform advancing speeds with precision regulation.
To couple in parallel it is advisable to choose cylinder ***SERIE 310 WITH GUIDED PISTON****.*

versions with parallel tank*..... piston rod out-stroke regulation - piston rod in-stroke regulation - double regulation*
versions with in-line tank*..... piston rod out-stroke regulation*
controllable load *..... max. 800 Kg. (including inertia of the moving mass)*
controlled speed *..... min. 40 mm/min max. 12 m/min*
temperature *..... -10°C ÷ +80°C*
fixings *..... same fixings are provided for series 309 and 319*

All the versions are available with the following pneumatic control devices: rapid nearing (SKIP**), normally open stop (**STOP**), normally closed stop (**STOP-NC**). Electrical control devices on request.*

MANUFACTURING CHARACTERISTICS

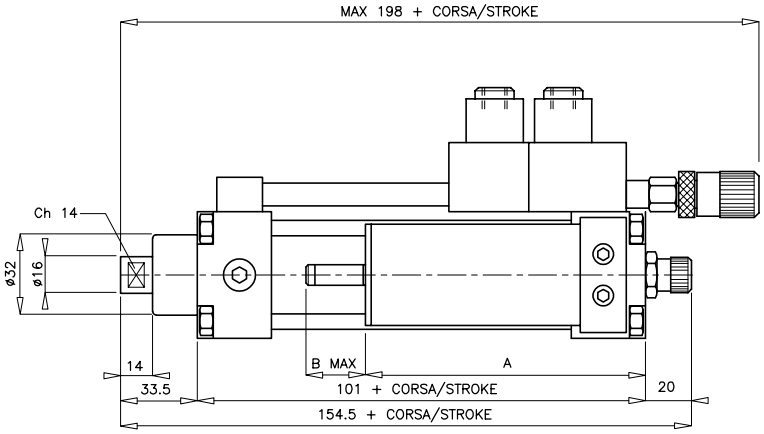
end covers *.....aluminium alloy (black oxid.)*
tube *.....steel ST 37 internally smoothed (nichel-plated)*
piston rod *.....chromed C45 steel Ø16*
seals *.....anti-oil rubber*
piston rod seal *.....polyurethane*
oil *.....hydraulic - constant viscosity ISO VG 37 cSt at 40°C t° -40°C ÷ +80°C*
bore *.....mm. 40*
available strokes *.....50 - 100 - 150 - 200 - 250 - 300 - 400 - 500*

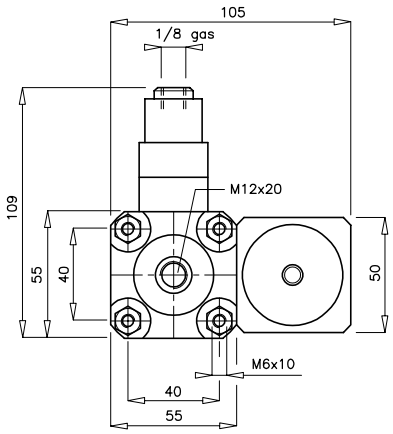
CODE LEGEND

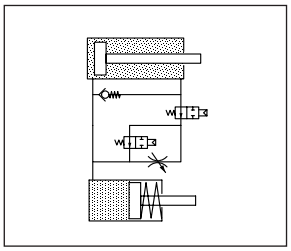
□□. □. □. □. 40 *stroke*

330 - with reservoir in parallel *331 - with reservoir in line*	*1 - out-stroke regulation* *2 - in-stroke regulation* *3 - double regulation*	*0 - without skip valve* *1 - out-stroke skip valve* *2 - in-stroke skip valve* *3 - double skip*	*0 - without stop* *1 - out-stroke stop valve* *2 - in-stroke stop valve* *3 - out-stroke valve* *4 - in-stroke stop-nc valve* *5 - double stop* *6 - double stop-nc*

Regolatore idraulico di velocità
Hydraulic speed regulator

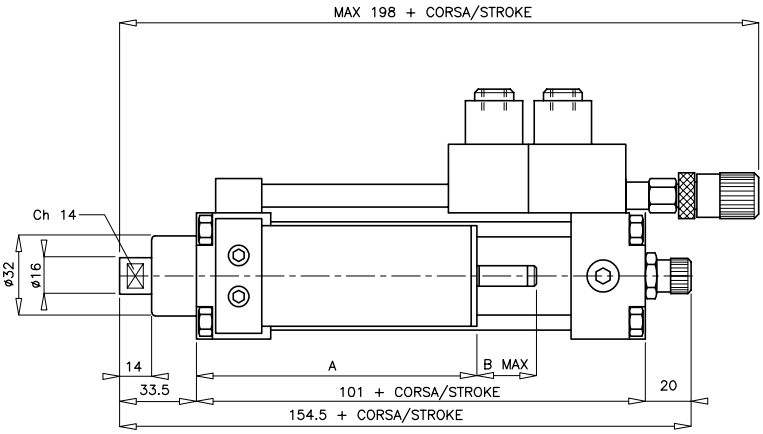


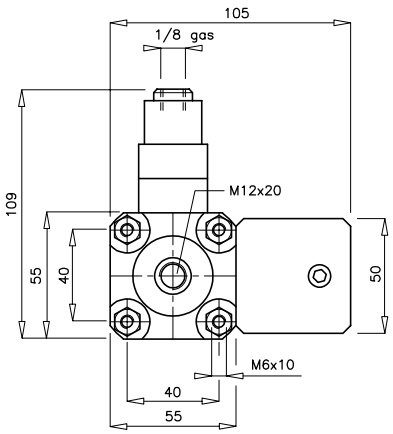


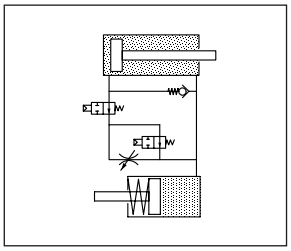


CORSA *STROKE*	A	B (max)
≥ 50 ≤ 75	123	23
>75 ≤ 125	137	37
>125 ≤ 200	158	58
>200 ≤ 300	174	74
>300 ≤ 500	251	113

REGOLAZIONE IN USCITA, SKIP, STOP codice. **330.11140** .corsa
OUT-STROKE REGULATION, SKIP, STOP *code.* ***330.11140*** *.stroke*

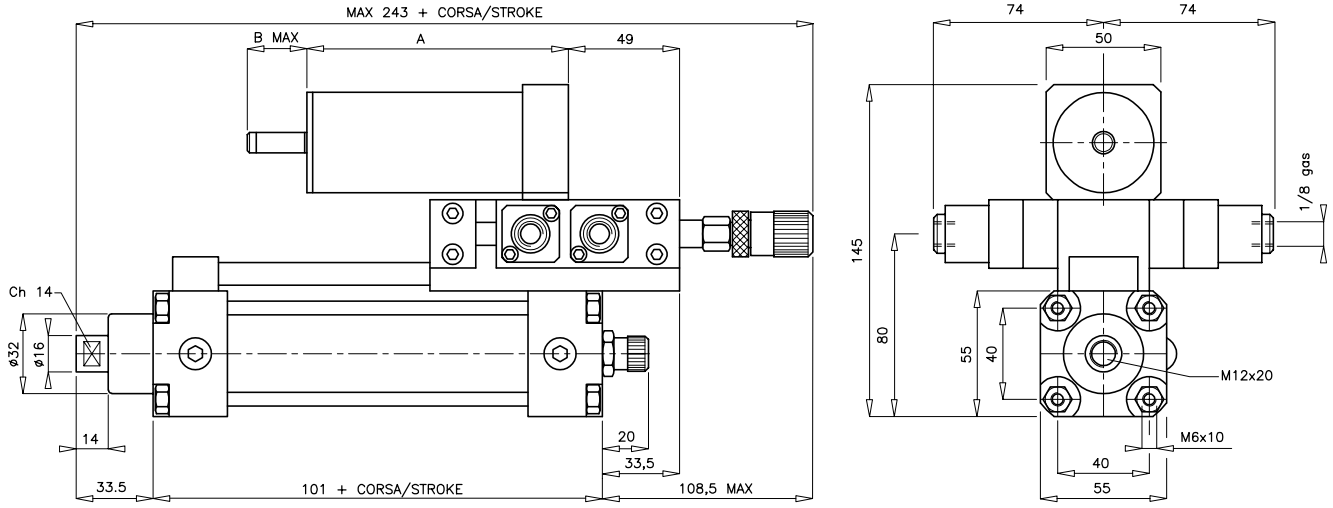


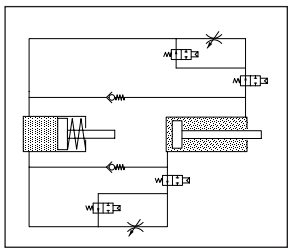




CORSA *STROKE*	A	B (max)
≥ 50 ≤ 75	123	23
>75 ≤ 125	137	37
>125 ≤ 200	158	58
>200 ≤ 300	174	74
>300 ≤ 500	251	113

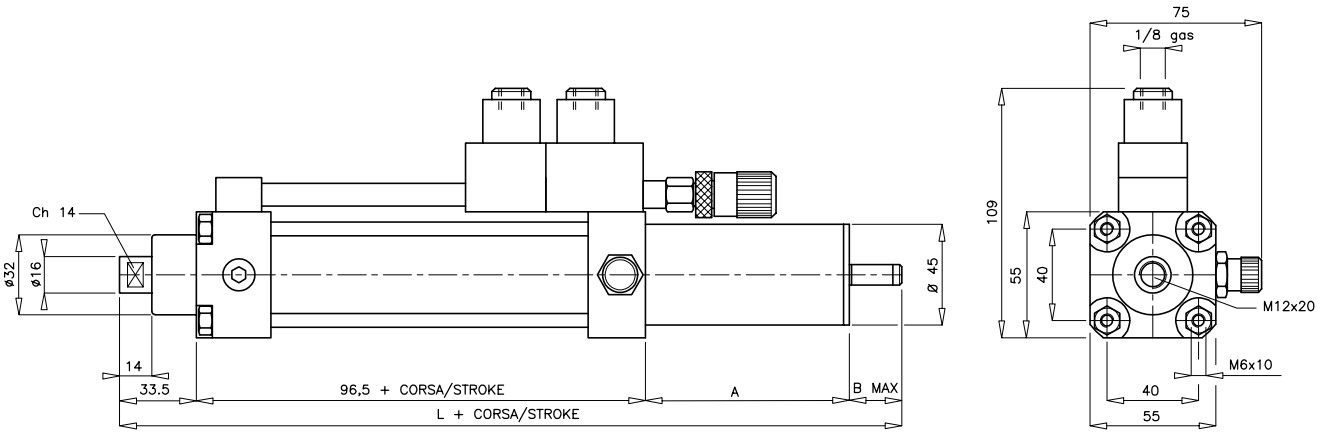
REGOLAZIONE IN ENTRATA, SKIP, STOP codice. **330.22240** .corsa
IN-STROKE REGULATION, SKIP, STOP *code.* ***330.22240*** *.stroke*

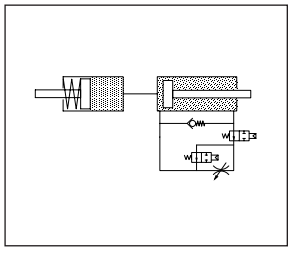




CORSA *STROKE*	A	B (max)
≥ 50 ≤ 75	112	26
>75 ≤ 125	120	34
>125 ≤ 200	150	46
>200 ≤ 300	195	70
>300 ≤ 500	268	113

DOPPIA REGOLAZIONE, DOPPIO SKIP, DOPPIO STOP codice. **330.33540** .corsa
DOUBLE REGULATION, DOUBLE SKIP, DOUBLE STOP *code.* ***330.33540*** *.stroke*

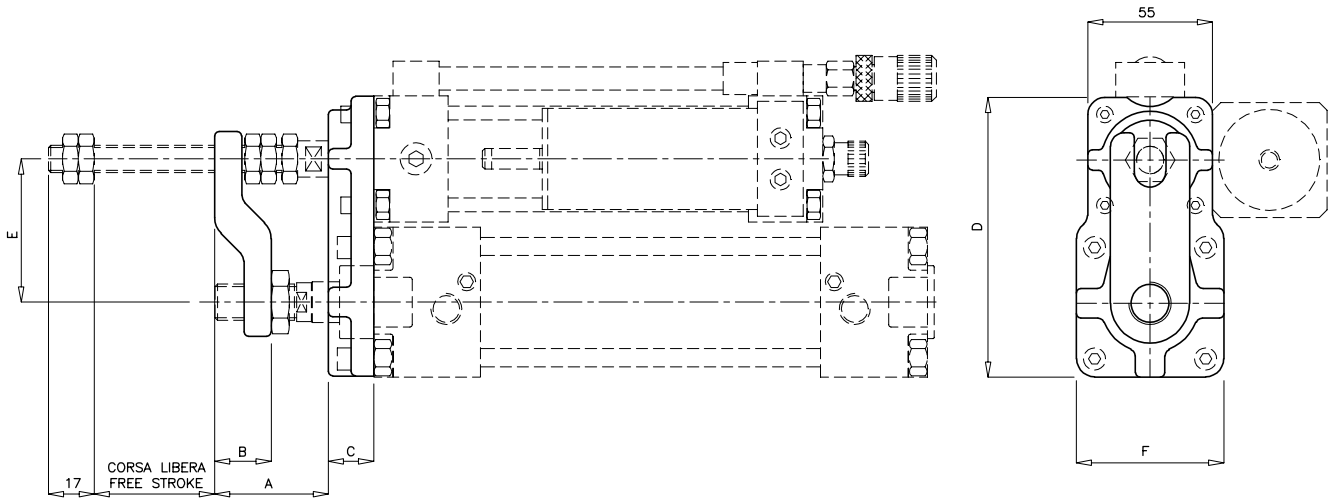




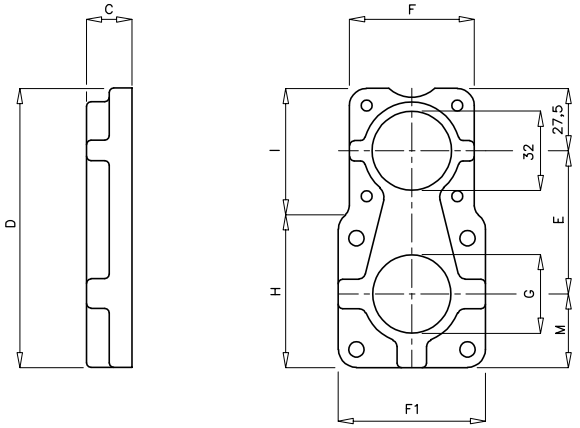
CORSA *STROKE*	A	B (max)	L
≥ 50 ≤ 75	89	23	242
>75 ≤ 125	103	37	270
>125 ≤ 200	124	58	312
>200 ≤ 300	140	74	344
>300 ≤ 500	217	113	460

REGOLAZIONE IN USCITA, SERBATOIO IN LINEA, SKIP, STOP codice. **331.11140** .corsa
OUT-STROKE REGULATION, WITH TANK IN LINE, SKIP, STOP *code.* ***331.11140*** *.stroke*

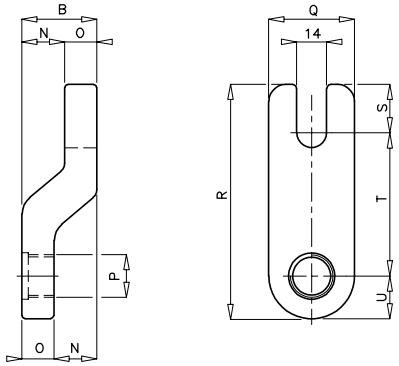
Accessori regolatore idraulico
Hydraulic regulator - accessories



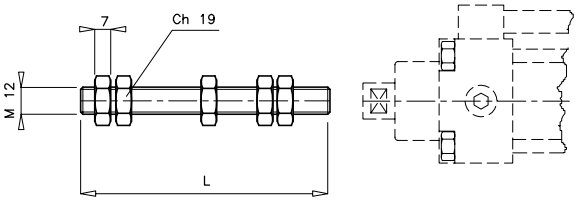
Schema di collegamento cilindro e regolatore idraulico di velocità
Cylinder and hydraulic speed regulator connection diagram



PIASTRA codice. **339.10** Ø .cilindro
PLATE *code.* ***339.10*** *Ø .cylinder*



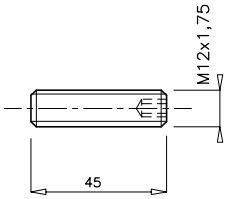
FORCELLA codice. **339.11** Ø .cilindro
FORK *code.* ***339.11*** *Ø .cylinder*

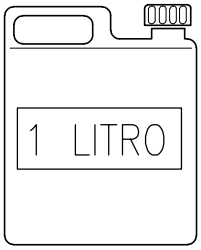


L=X + corsa libera cilindro
L*=X + cylinder free stroke*

BARRA FILETTATA CON DADI codice. **339.12** .L
THREADED BAR WITH NUTS *code.* ***339.12*** *.L*

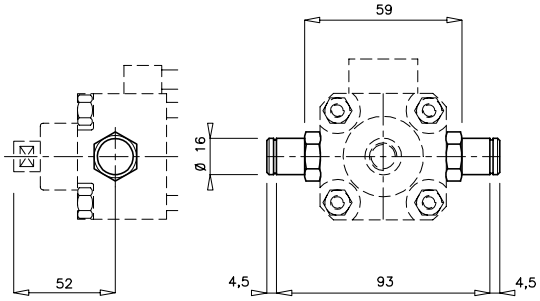
ALESAGGIO *BORE*	A	B	C	D	E	F	F1	G	H	I	X	M	N	O	P	Q	R	S	T	U
40	58	25	12	113	58	55	55	32	-	-	78	27,5	13	12	M 16x1,5	35	90	17	58	15
50	58	25	12	123	63	65	65	32	-	-	78	32,5	13	12	M 16x1,5	35	90	17	58	15
63	65	35	20	134	69	55	75	45	75	59	85	37,5	20	15	M 20x1,5	40	110	23	67	20
80	65	35	20	155	80	55	95	45	97	58	85	47,5	20	15	M 20x1,5	40	110	23	67	20
100	90	40	20	175	90	55	115	55	115	60	110	57,5	22	18	M 27x2	50	140	27	88	25



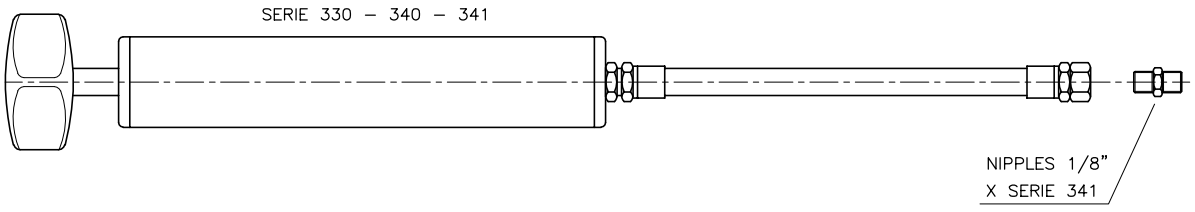


NIPPLO PER FORCELLA codice.**339.15040**
FORK NIPPLE *code.**339.15040***

OLIO RICARICA codice. **339.16040**
RECHARGE OIL *code.* ***339.16040***



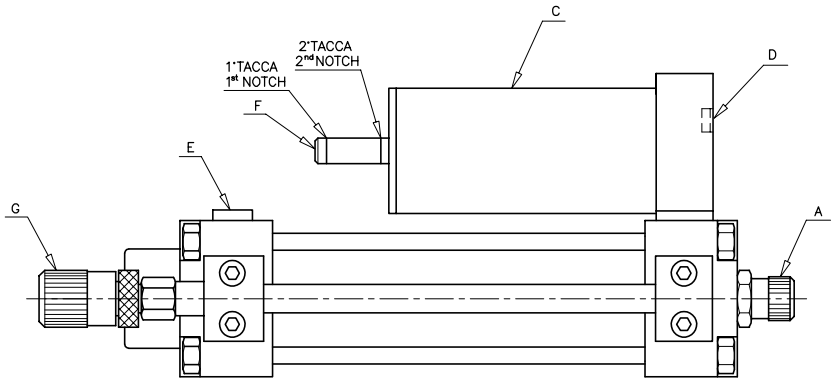
PERNI FULCRO codice. **339.08040**
FULCRUM PINS *code.* ***339.08040***



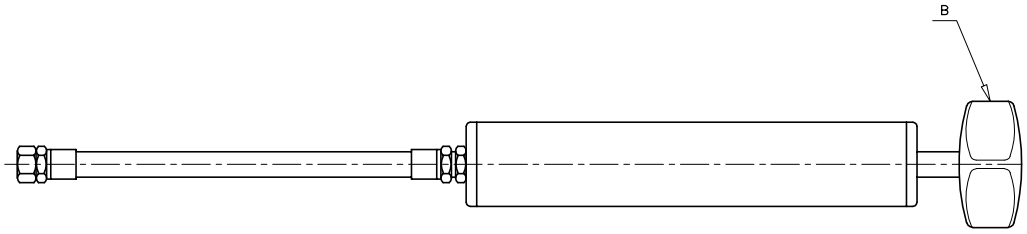
POMPA DI CARICAMENTO codice. **339.17040**
LOADING PUMP *code.* ***339.17040***

Sono previsti: **KIT GUARNIZIONI DI RICAMBIO**
Also available: ***SPARE SEAL KITS***

Altri accessori di fissaggio come serie 309 e 319.
Other fixing accessories as for series 309 and 319



regolatore idraulico



pompa di caricamento

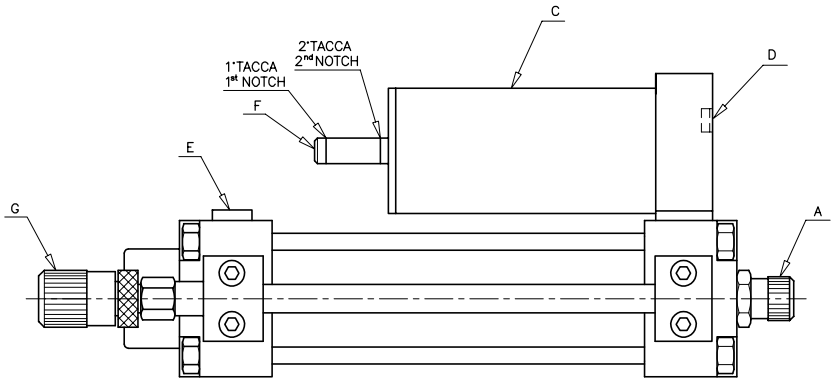
ISTRUZIONI PER IL CARICAMENTO E RICAMBIO COMPLETO DI OLIO

Smontare il regolatore dalla macchina e svuotarlo completamente dopo aver svitato i tappi **D** - **E**. Svitare il tappo **A** ed avvitare il beccuccio della pompa nell' apposita valvola unidirezionale, assicurarsi che il volantino **G** del regolatore di flusso sia in posizione tutto aperto.
Inclinare il regolatore di circa 30° con la testata anteriore e il tappo **E** verso l' alto. Quindi, con lo stelo in posizione tutta retratta, pompare l' olio fino a farlo uscire dal foro **D**, chiudere e continuare a pompare olio fino a farlo uscire di nuovo dal foro **E**, chiudere e pompare ancora fino a quando l' asta di livello **F** non scoprirà la seconda tacca.

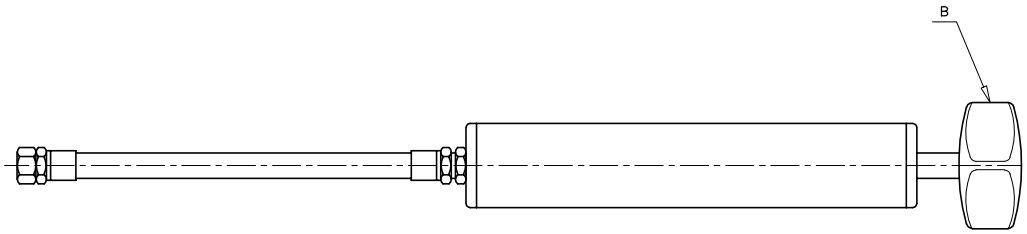
ISTRUZIONI PER LA RICARICA

Svitare il tappo **A** ed avvitare il beccuccio della pompa nell' apposita valvola unidirezionale, avendo cura di eliminare eventuali bolle d' aria nel tubetto della condotta. Quindi con lo stelo in posizione tutta retratta pompare olio avvitando il volantino **B** della pompa fino a fare uscire la seconda tacca dell' asta di livello **F**.

N.B. : Per una corretta manutenzione è consigliabile effettuare l' operazione di ricarica quando, con lo stelo del regolatore tutto fuori, l' asta di livello **F** non entra oltre la prima tacca.



hydraulic regulator



loading pump

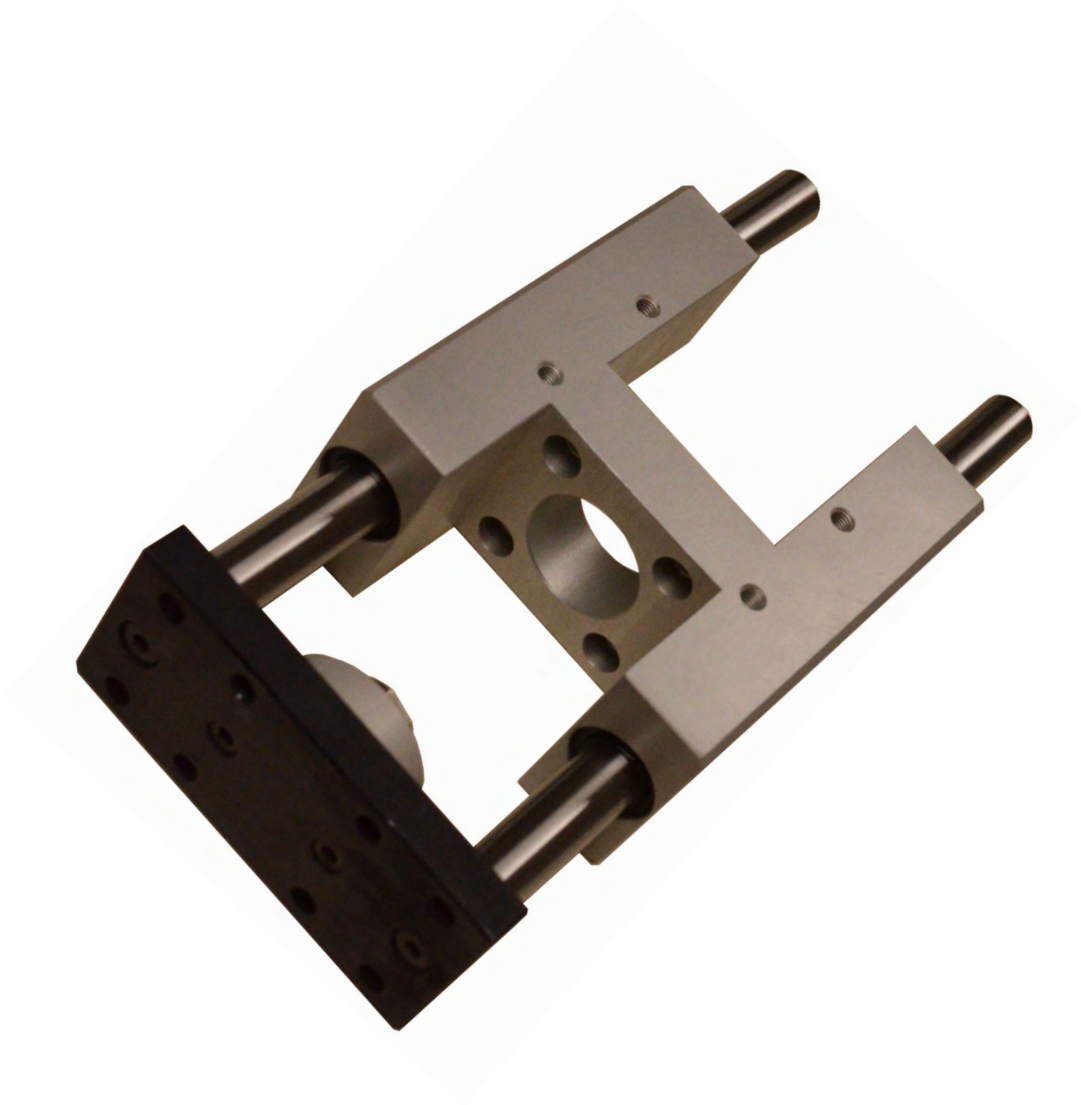
LOADING AND COMPLETE OIL CHANGE INSTRUCTIONS

*Remove the regulator from the machine and empty it completely after loosening caps **D**-**E**. Remove cap **A** and screw the pump nozzle to the non-return valve, ensure that flow regulator handwheel **G** is in the fully open position.*
*Tilt the regulator by approx. 30° with front end cover and cap **E** facing upwards. Then, when the piston rod is in a fully retracted position pump the oil until it exits from hole **D**, close and go on pumping the oil until it exits from hole **E**, close and go on pumping oil until the level bar **F** shows the second notch.*

RECHARGING INSTRUCTIONS

*Remove cap **A** and connect the pump nozzle to the proper non-return valve, ensuring that any air bubbles in the duct tube are removed. When the piston rod is in the fully retracted position pump the oil by turning the pump handwheel B until the second notch on the level bar **F** is shown.*

N.B. *For a correct maintenance it is advisable to carry out recharging operations when the level bar **F** does not go over the first notch once the regulator piston rod is fully extended.*



CARATTERISTICHE TECNICHE

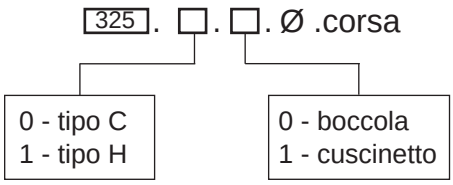
Le unità di guida sono state realizzate in due tipologie a seconda del carico da applicare: il tipo "**C**" con scorrimento su boccole autolubrificanti ed il tipo "**H**", per carichi più elevati, nelle versioni con boccole autolubrificanti o con cuscinetti a ricircolo di sfere per una migliore scorrevolezza.

alesaggi..... 20 - 25 - 32 - 40 - 50 - 63 - 80 - 100
fissaggi..... direttamente sul corpo centrale per mezzo di fori filettati
versioni..... tipo "**C**" (boccola autolubrificante)
tipo "**HB**" (boccola autolubrificante)
tipo "**HC**" (cuscinetti a ricircolo di sfere)

CARATTERISTICHE COSTRUTTIVE

corpo centrale .....in lega di alluminio anodizzato
piastra di fissaggio .....in lega di alluminio anodizzato
barre di scorrimento .....in acciaio C 40 cromato per le versioni "**C**" e "**HB**"
in acciaio CF 53 temprato e cromato per la versione "**HC**"
guarnizioni ..... raschiapolvere in gomma NBR

LEGENDA CODICI



TECHNICAL CHARACTERISTICS

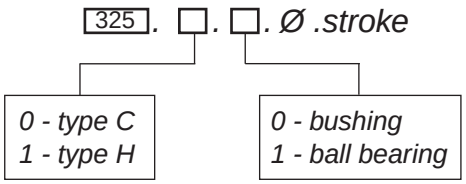
*There are two kind of guide units, made in accordance with the load to be applied: the "**C**" type with slide on self-lubricating bushings and the "**H**" type for larger loads, in versions with self-lubricating bushings or with ball-bearings for a better slide.*

bores..... *20 - 25 - 32 - 40 - 50 - 63 - 80 - 100*
fixings..... *directly on the central body by means of threaded holes*
versions..... *type "**C**" (self-lubricating bushing)*
*type "**HB**" (self-lubricating bushing)*
*type "**HC**" (ball bearings)*

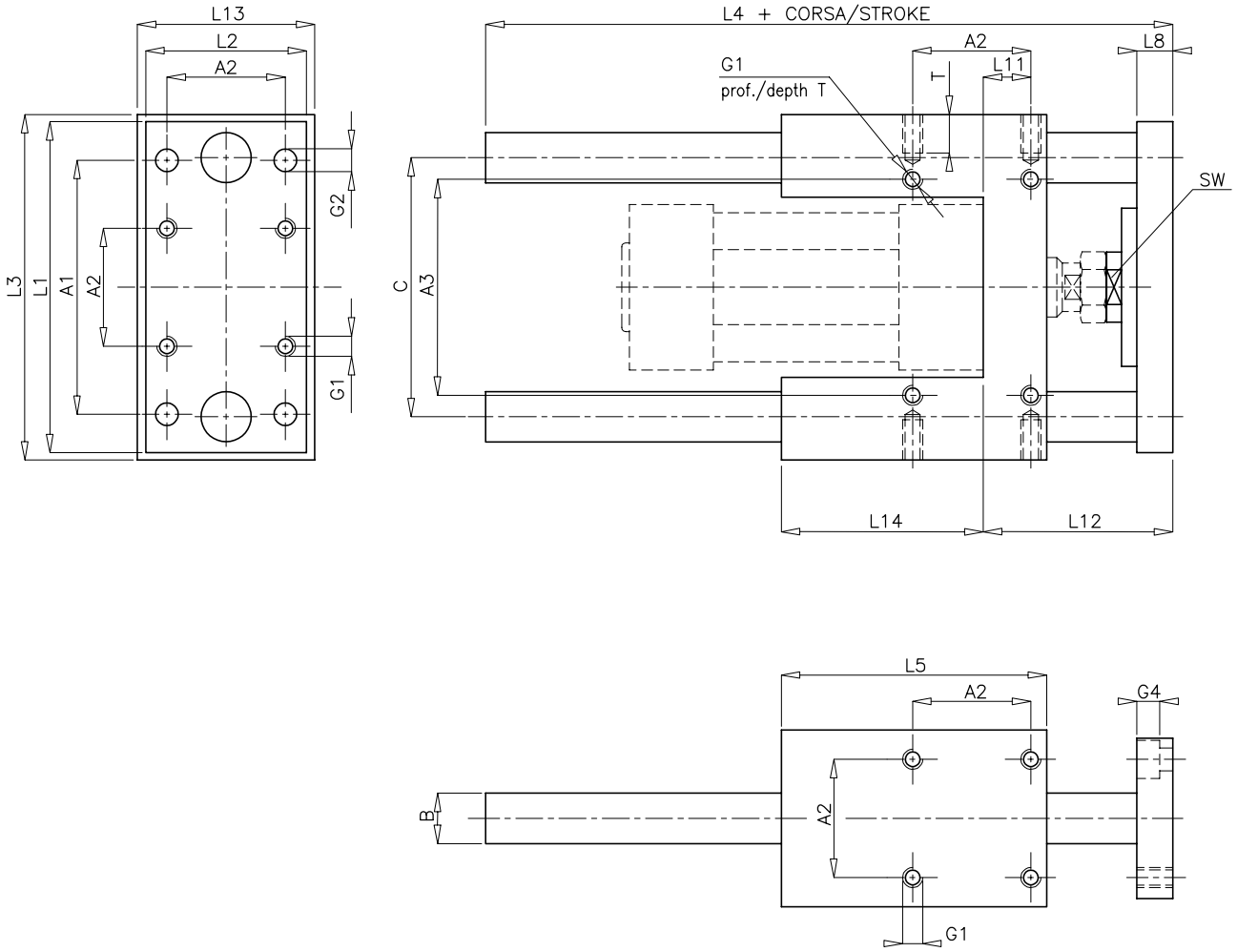
MANUFACTURING CHARACTERISTICS

central body ..... *anodised aluminium alloy*
fixing plate ..... *anodised aluminium alloy*
sliding bars ..... *C40 chromed steel for the versions "**C**" and "**HB**"*
*CF 53 hardened and chromed steel for the versions "**HC**"*
seals ..... *NBR rubber scraper*

CODE LEGEND

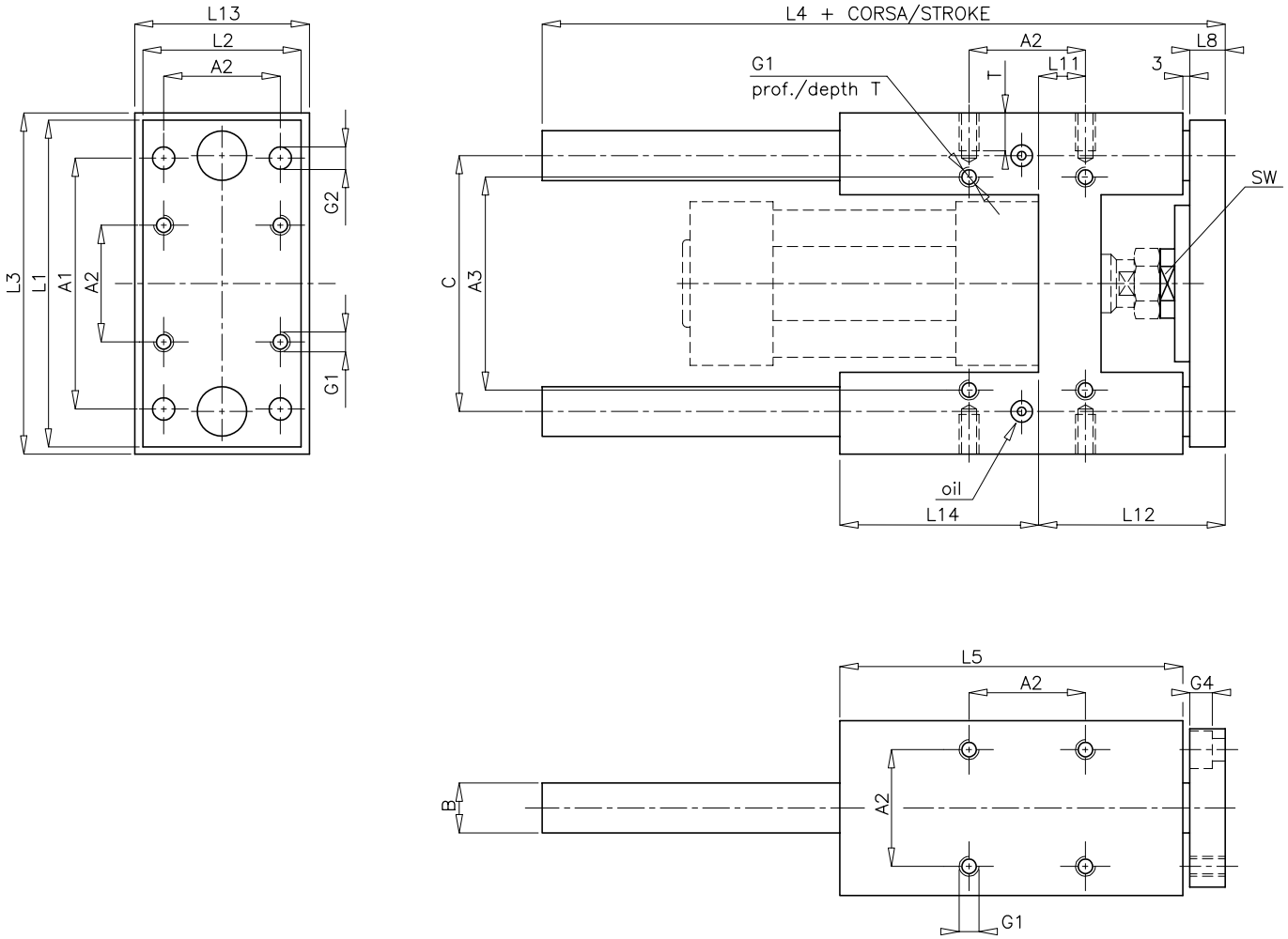


Unità di guida cilindri ISO 15552
Guide unit for cylinders ISO 15552



GUIDA TIPO C codice. **325.00** Ø.corsa cilindro
GUIDE TYPE C *code.* ***325.00*** *Ø.cylinder stroke*

ALESAGGIO *BORE*	A1	A2	A3	B	C	G1	G2	G4	L1	L2	L3	L4	L5	L8	L11	L12	L13	L14	SW	T
32	78	32,5	61	12	74	M 6	6,6	6,5	93	45	97	120	48	12	9,3	71	50	31	15	12
40	84	38	69	16	87	M 6	6,6	6,5	112	55	115	130	58	12	11	76	58	37	15	12
50	100	46,5	85	20	104	M 8	9	9	134	65	137	143	59	15	18,8	89	70	34	20	16
63	105	56,5	100	20	119	M 8	9	9	147	80	152	161	76	15	15,3	89	85	51	20	16

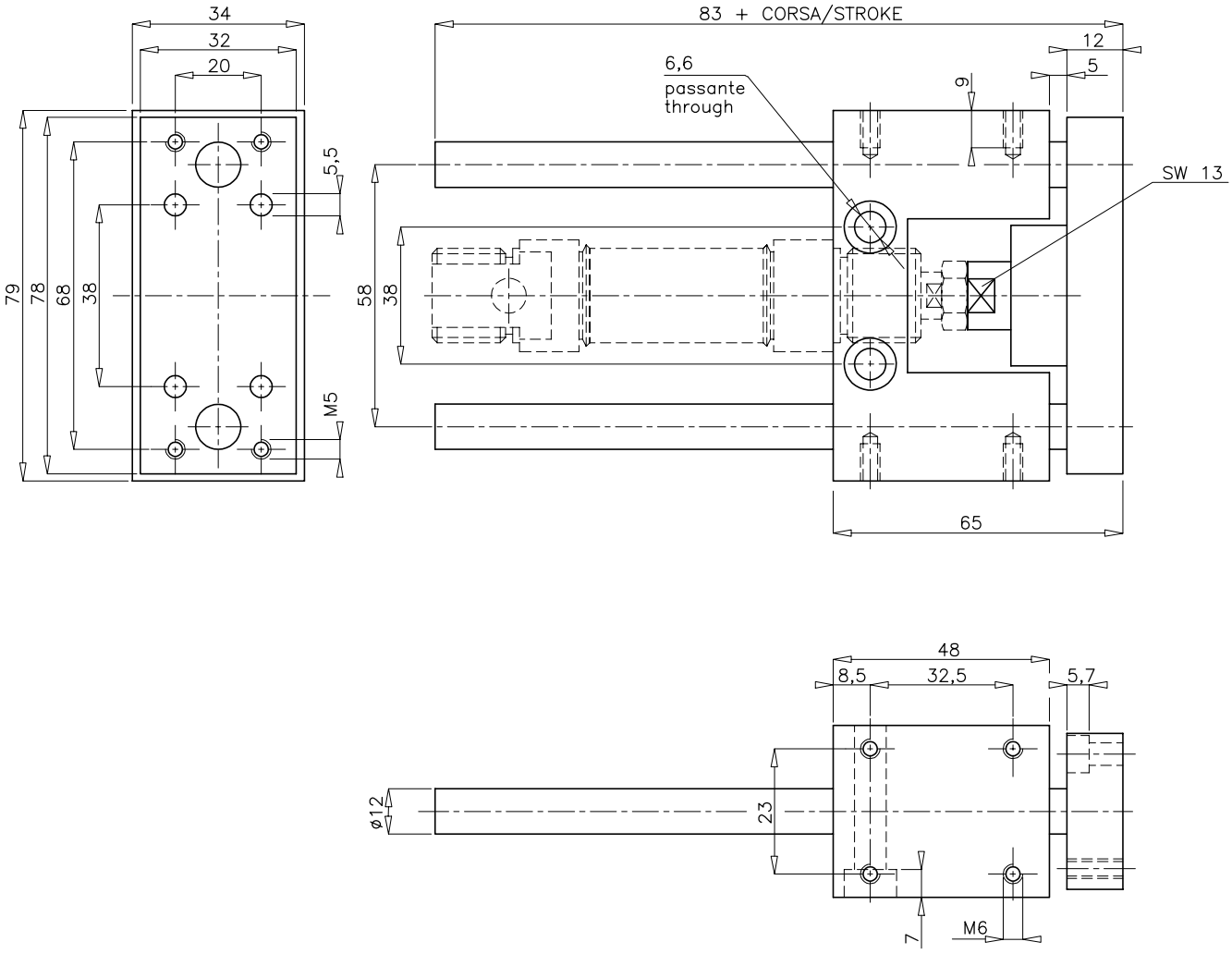


GUIDA TIPO H-B scorrimento su boccola codice. **325.10** Ø.corsa cilindro
GUIDE TYPE H-B *slide on bushing code.* ***325.10*** *Ø.cylinder stroke*
GUIDA TIPO H-C scorrimento su cuscinetto codice. **325.11** Ø.corsa cilindro
GUIDE TYPE H-C *slide on ball bearings code.* ***325.11*** *Ø.cylinder stroke*

ALESAGGIO *BORE*	A1	A2	A3	B	C	G1	G2	G4	L1	L2	L3	L4	L5	L8	L11	L12	L13	L14	SW	T
32	78	32,5	61	12	74	M 6	6,6	6,5	93	45	97	187	125	12	4,3	65	50	75	15	12
40	84	38	69	16	87	M 6	6,6	6,5	112	55	115	207	140	12	11	75	58	80	15	12
50	100	46,5	85	20	104	M 8	9	9	134	65	137	223	148	15	18,8	88	70	78	20	16
63	105	56,5	100	20	119	M 8	9	9	147	80	152	243	178	15	15,3	90	85	106	20	16
80	130	72	130	25	148	M10	11	11	180	100	188	267	195	20	25	107	105	111	26	20
100	150	89	150	25	173	M10	11	11	206	120	214	290	218	20	30	113	130	128	26	20

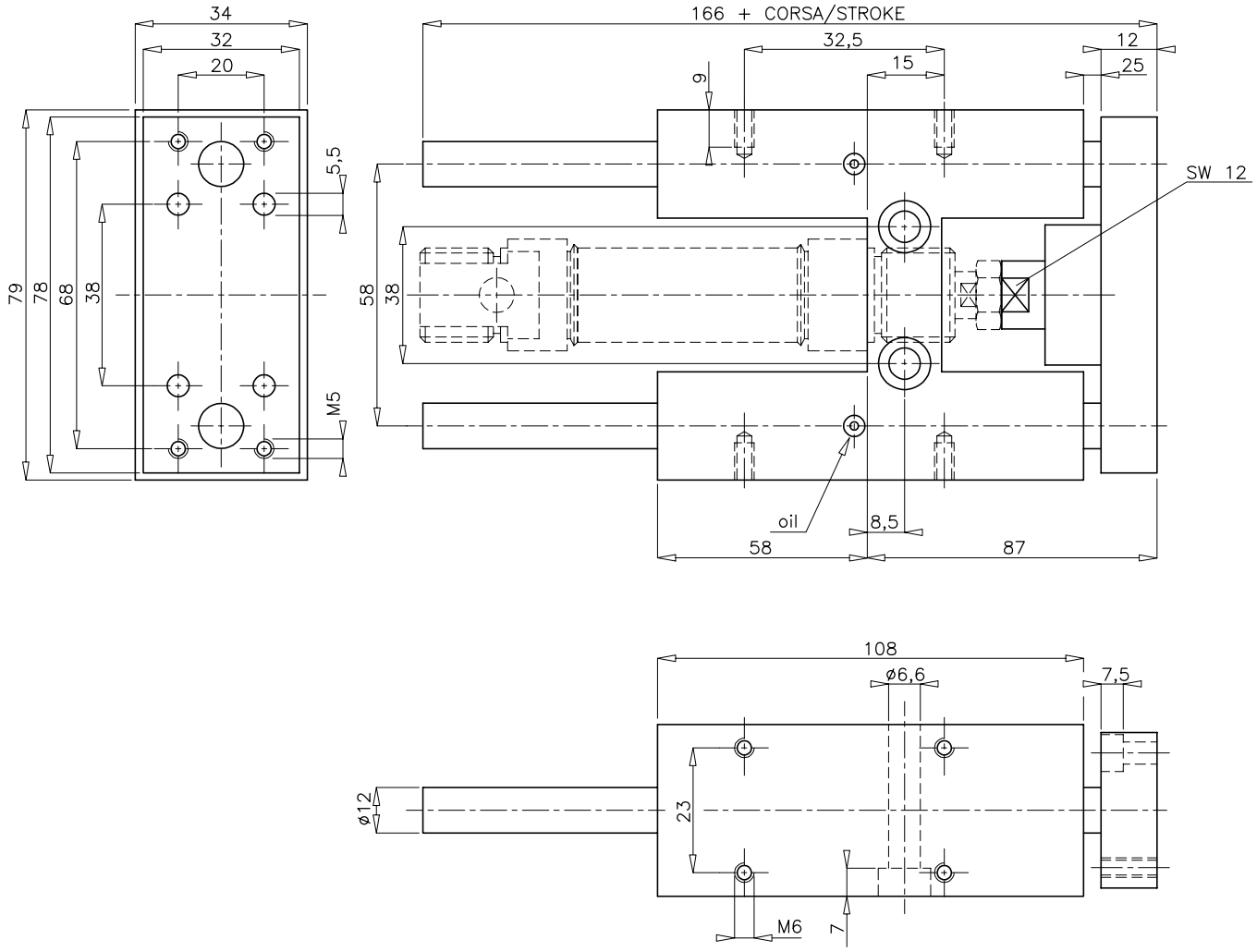
Unità di guida microcilindri ISO 6432
Guide unit for microcylinders ISO 6432

alesaggio/*bore* 20 - 25



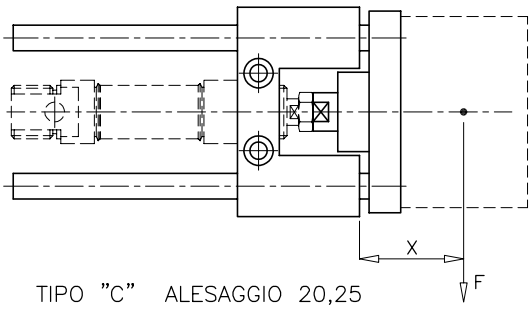
GUIDA TIPO C codice. **325.00.** Ø. corsa cilindro
GUIDE TYPE C *code.* ***325.00.*** *Ø. cylinder stroke*

alesaggio/*bore* 20 - 25

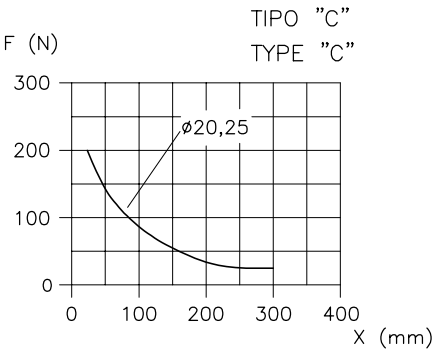


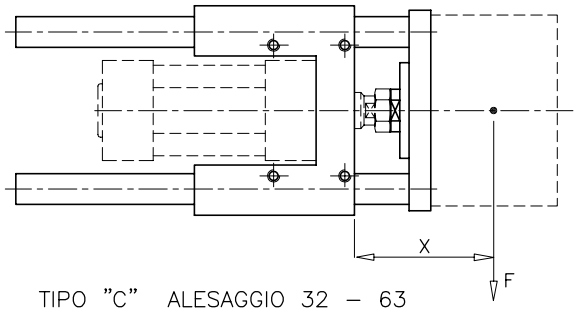
GUIDA TIPO H-B scorrimento su boccola codice. **325.10.** Ø. corsa cilindro
GUIDE TYPE H-B *slide on bushing code.* ***325.10.*** *Ø. cylinder stroke*
GUIDA TIPO H-C scorrimento su cuscinetto codice. **325.11.** Ø. corsa cilindro
GUIDE TYPE H-C *slide on ball bearings code.* ***325.11.*** *Ø. cylinder stroke*

Diagrammi unità di guida
Guide units diagram

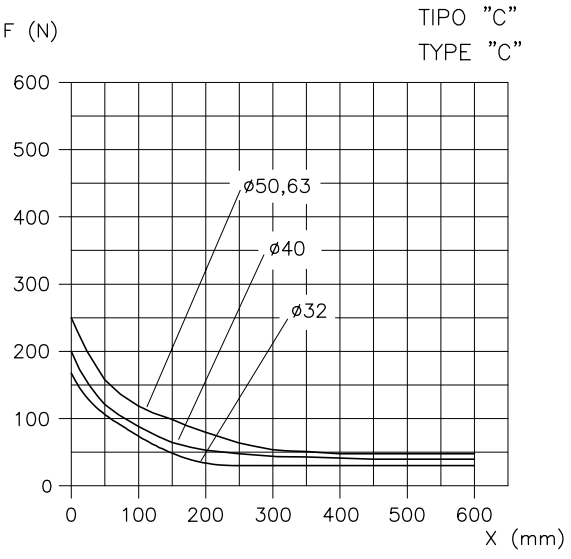


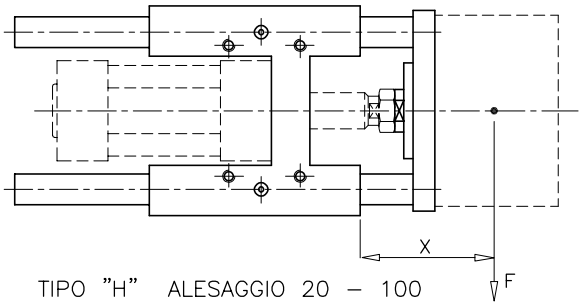
TIPO "C" ALESAGGIO 20,25
TYPE "C" BORE 20,25





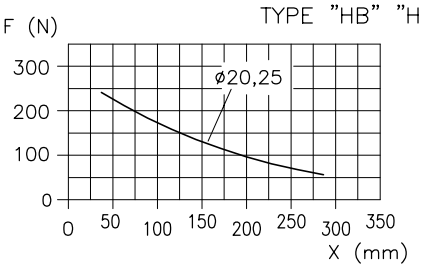
TIPO "C" ALESAGGIO 32 – 63
TYPE "C" BORE 32 – 63



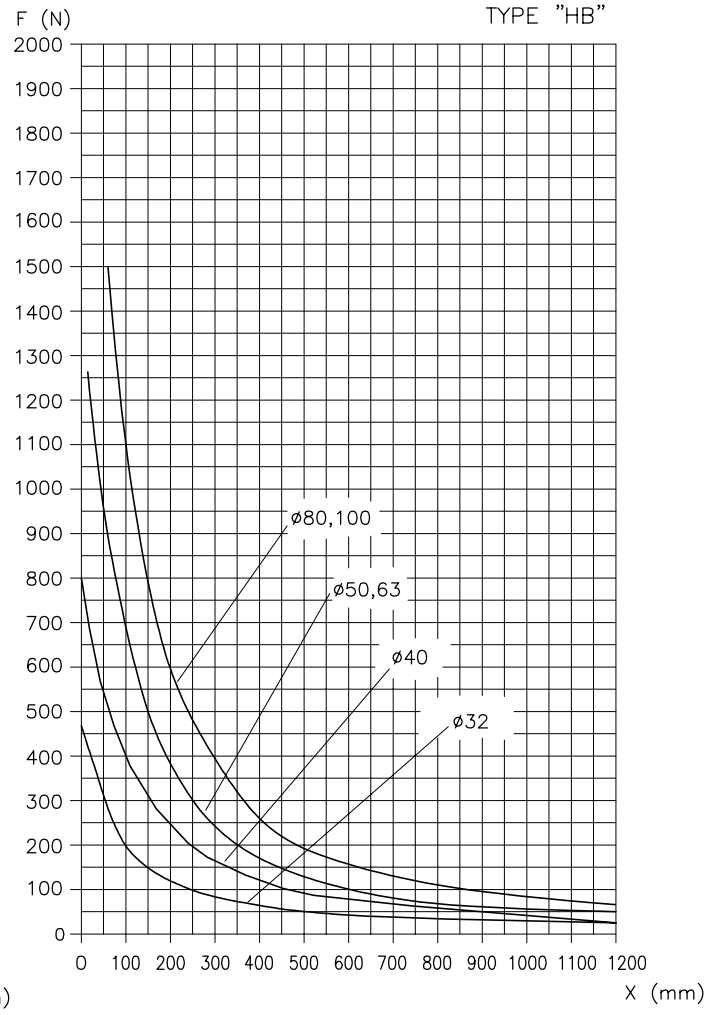


TIPO "H" ALESAGGIO 20 – 100
TYPE "H" BORE 20 – 100

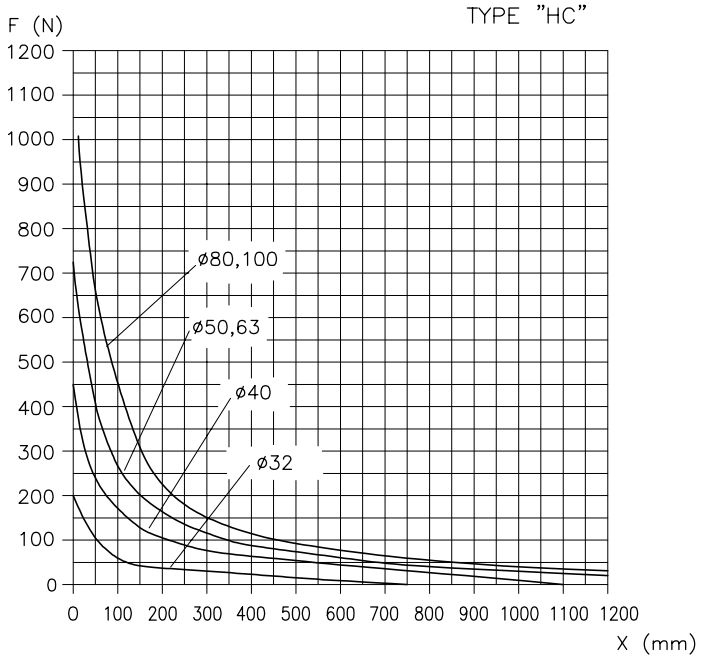
TIPO "HB" "HC"
TYPE "HB" "HC"



TIPO "HB"
TYPE "HB"



TIPO "HC"
TYPE "HC"



CARATTERISTICHE TECNICHE

A doppio effetto con deceleratori di fine corsa, funzionamento anche senza lubrificazione, pistone magnetico, testate fissate direttamente sulla camicia.

alesaggi	32	40	50	63	80	100
lunghezza deceleratore	27	30	30	35	39	45

fissaggi..... sono previsti gli stessi fissaggi della serie 329 per cilindri ISO - VDMA
versione base..... steli gemellati
stelo passante..... steli gemellati + stelo passante
doppio..... steli gemellati passanti

CARATTERISTICHE FUNZIONALI

fluido ..... aria filtrata con o senza lubrificazione
pressione max. ..... 10 bar
temperatura .....0°C ÷ 80°C (-20°C con aria secca)

CARATTERISTICHE COSTRUTTIVE

testate .....in lega di alluminio verniciate nere
camicia ..... in lega di alluminio ossidato duro
stelo .....in acciaio C40 cromato (su richiesta inox)
pistone ..... monoblocco in gomma speciale NBR 72 SHORE vulcanizzata su disco metallico con magnete permanente in plastoferrite
guarnizioni ..... in gomma NBR e poliuretano

LEGENDA CODICI

326 . □ . □ . □ . Ø .corsa

- □ (1): 0 - versione base; 1 - stelo passante; 2 - doppio
- □ (2): 0 - camicia profilo Mickey-mouse; 1 - camicia profilo quadro
- □ (3): 0 - stelo cromato; 1 - stelo inox

TECHNICAL CHARACTERISTICS

Double-acting with limit switch deceleration, also operates without lubrication, magnetic piston, end covers fixed directly on the tube.

bores	*32*	*40*	*50*	*63*	*80*	*100*
decelerator length	*27*	*30*	*30*	*35*	*39*	*45*

fixings*.....same fixings are provided for cylinders ISO - VDMA serie 329*
basic versions*..... twin piston rods*
double piston rod*... twin piston rods + double piston rod*
double*..... twin double piston rods*

FUNCTIONING CHARACTERISTICS

fluid *.....filtered air with or without lubrication*
max. pressure *..... 10 bar*
temperature *.....0°C ÷ 80°C (-20°C with dry air)*

MANUFACTURING CHARACTERISTICS

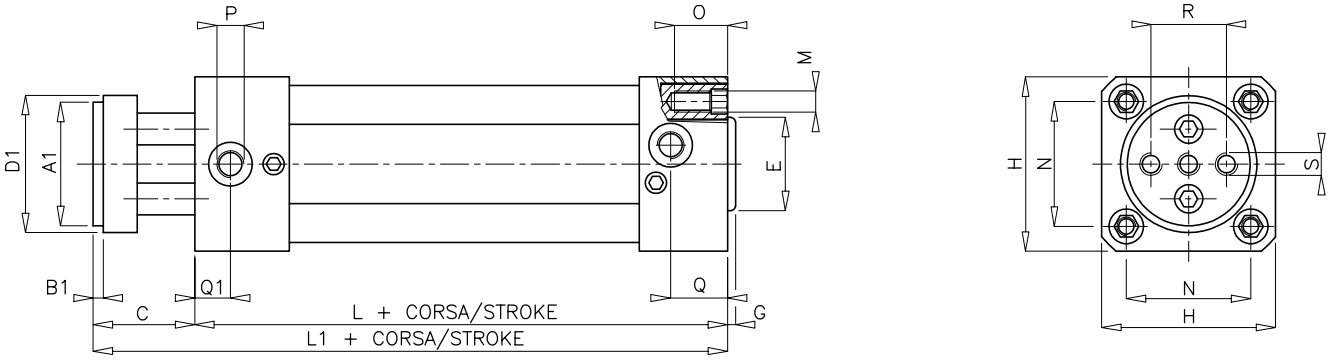
end covers *..... black varnished aluminium alloy*
tube *.....hard oxidised aluminium alloy*
piston rod*.....chromed C40 steel (stainless steel on request)*
piston *.....monoblock in special rubber NBR 72 SHORE vulcanised on metallic disk with permanent plastoferrite magnet*
seals *.....NBR and polyurethane*

CODE LEGEND

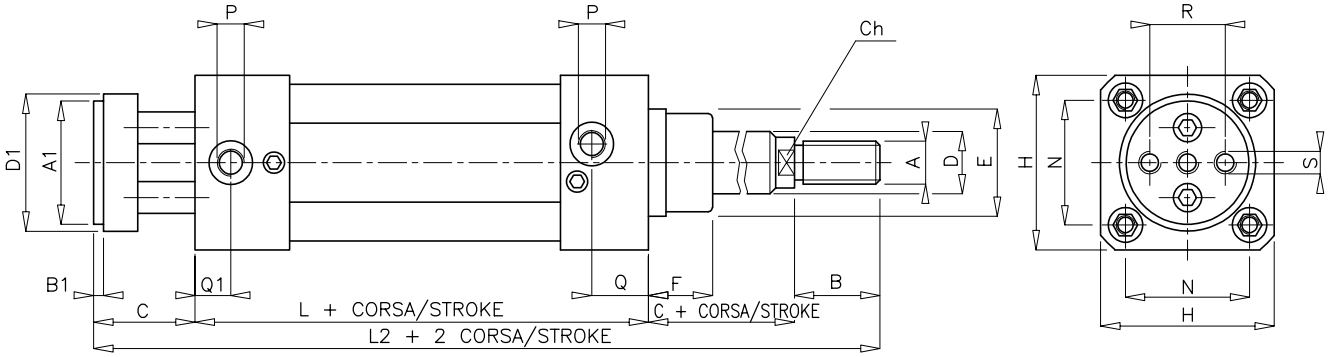
326 . □ . □ . □ . Ø .stroke

1st □	2nd □	3rd □
0 - basic version *1 - double piston rod* *2 - double*	*0 - tube Mickey-mouse profile* *1 - tube square profile*	*0 - chromed piston rod* *1 - stainless steel piston rod*

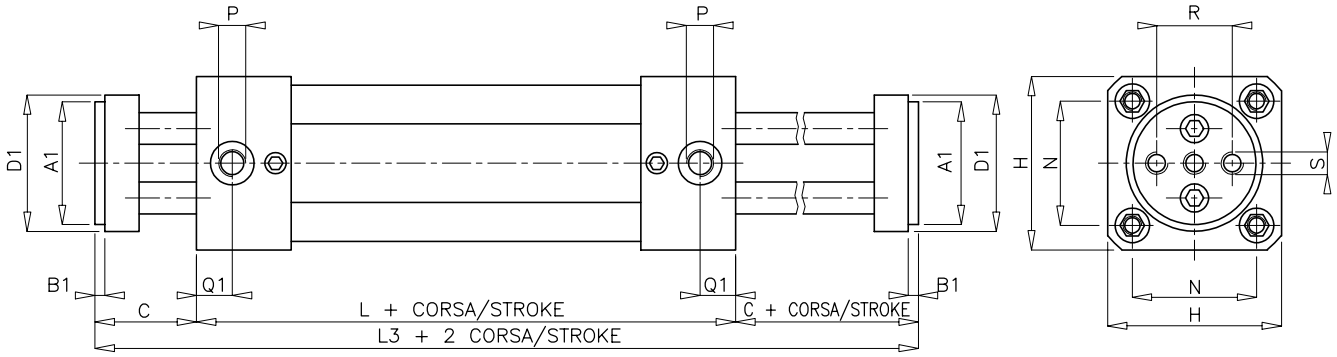
Cilindri a steli gemellati camicia Mickey-mouse
Twin-piston rod cylinders tube Mickey-mouse



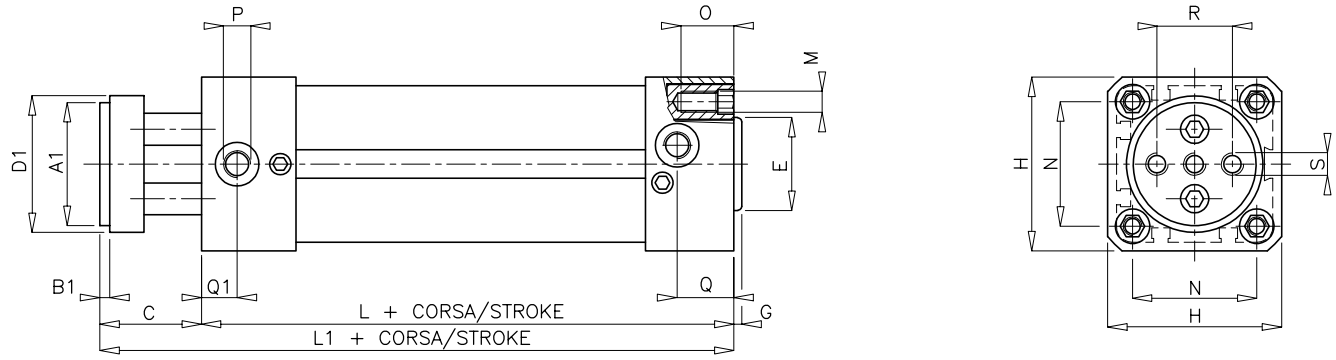
VERSIONE STANDARD codice. **326.0.0.0** Ø.corsa
STANDARD VERSION *code.* ***326.0.0.0*** *Ø.stroke*



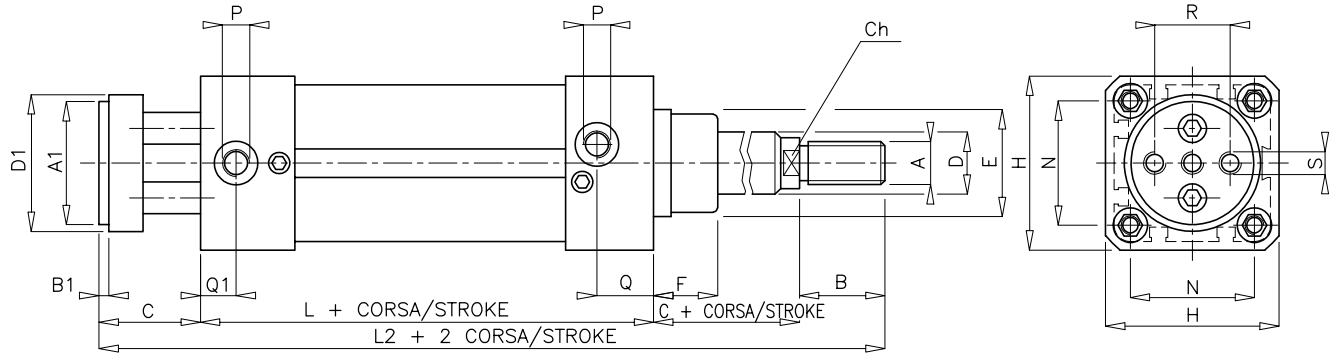
VERSIONE STANDARD stelo passante codice. **326.1.0.0** Ø.corsa
STANDARD VERSION *double piston code.* ***326.1.0.0*** *Ø.stroke*



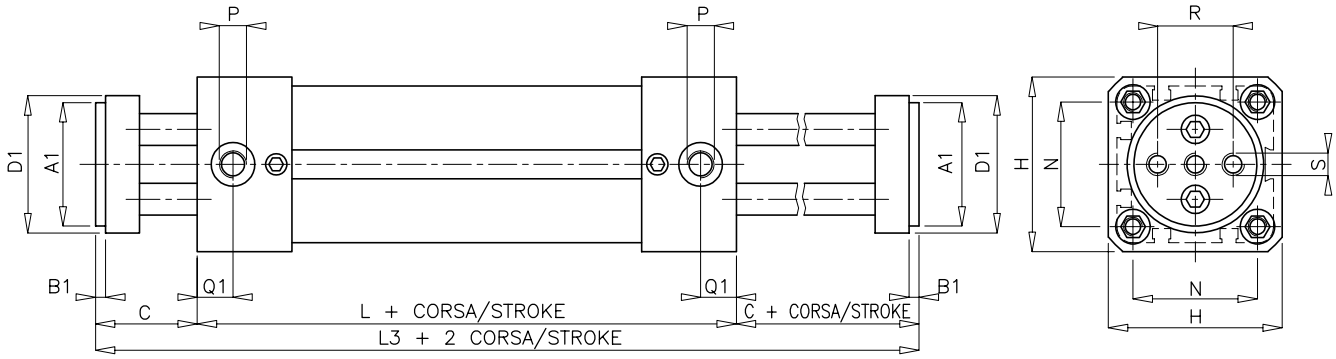
VERSIONE STANDARD doppio codice. **326.2.0.0** Ø.corsa
STANDARD VERSION *double code.* ***326.2.0.0*** *Ø.stroke*



VERSIONE STANDARD codice. **326.0.1.0** Ø.corsa
STANDARD VERSION *code.* ***326.0.1.0*** *Ø.stroke*

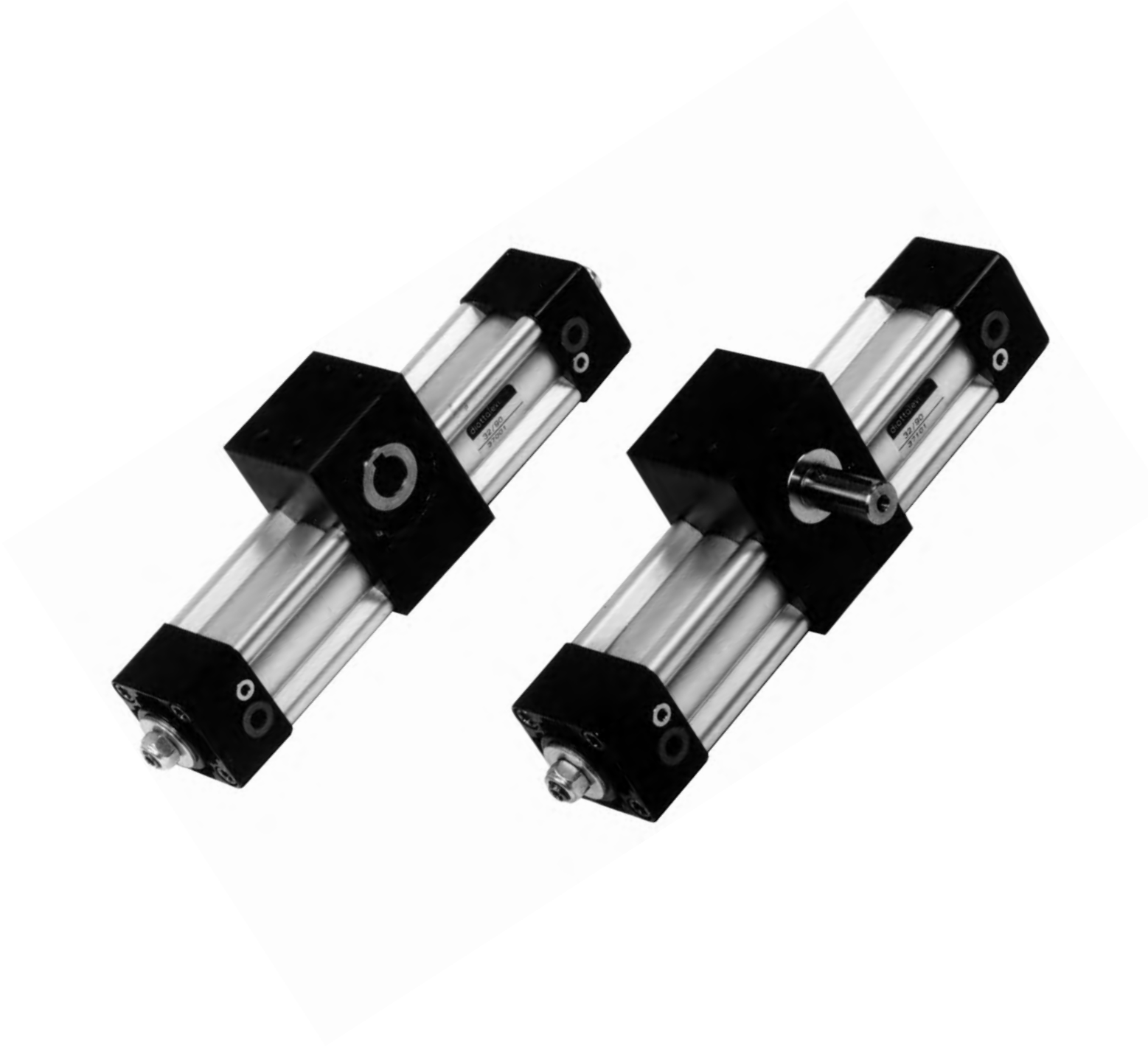


VERSIONE STANDARD stelo passante codice. **326.1.1.0** Ø.corsa
STANDARD VERSION *double piston code.* ***326.1.1.0*** *Ø.stroke*



VERSIONE STANDARD doppio codice. **326.2.1.0** Ø.corsa
STANDARD VERSION *double code.* ***326.2.1.0*** *Ø.stroke*

ALESAGGIO *BORE*	A	A1	B	B1	C	Ch	D	D1	E	F	G	H	L	L1	L2	L3	M	N	O	P	Q	Q1	R	S
32	M10x1,25	32	22	4	26	8	12	35	30	15	2,5	45	94	120	168	146	M 6	32,5	14	1/8"	19	8	19	M 6
40	M12x1,25	40	24	4	30	12	16	45	35	18	3	52	105	135	189	165	M 6	38	14	1/4"	18	10	22,5	M 8
50	M16x1,5	50	32	5	37	17	20	55	40	24	3	65	106	143	212	180	M 8	46,5	17	1/4"	21,5	10	30	M 8
63	M16x1,5	63	32	5	37	17	20	70	45	24	4	75	121	158	227	195	M 8	56,5	17	3/8"	22	12	38	M10
80	M20x1,5	80	40	5	46	20	25	85	45	28	4	95	128	174	260	220	M10	72	24	3/8"	25	12	50	M12
100	M20x1,5	100	40	5	51	20	25	105	55	33	5	115	138	189	280	240	M10	89	24	1/2"	22	14	70	M12



CARATTERISTICHE TECNICHE

A doppio effetto magnetico con deceleratori di fine corsa e regolazione dell'angolo di rotazione, funzionamento anche senza lubrificazione, testate fissate direttamente sulla camicia.

alesaggi	32	40	50	63	80	100
lunghezza deceleratore	20	25	25	30	30	35
regolazione angolo rotazione	±5°					

fissaggi.....nel corpo centrale per mezzo di viti e accessori serie ISO 6431
versioni.....pignone femmina - pignone maschio - pistone magnetico

CARATTERISTICHE FUNZIONALI

fluido .....aria filtrata con o senza lubrificazione
pressione max. .....10 bar
temperatura .....0°C ÷ 80°C (-20°C con aria secca)

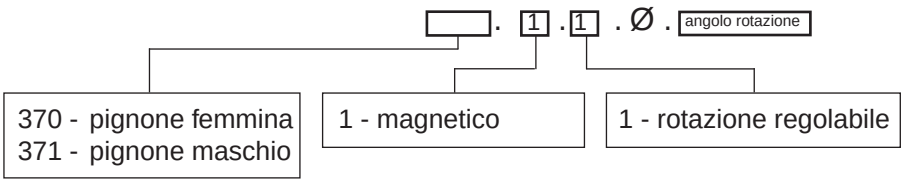
CARATTERISTICHE COSTRUTTIVE

testate .....in lega di alluminio pressofuse verniciate nere
camicia .....in lega di alluminio ossidato duro
pistone .....monoblocco in gomma speciale NBR vulcanizzata su disco metallico con magnete permanente in plastoferrite
corpo centrale.....in lega di alluminio anodizzato
pignone.....in acciaio bonificato
cremagliera.....in acciaio C 45
guarnizioni .....in gomma NBR

ANGOLI DI ROTAZIONE DISPONIBILI

90° - 180° - 270° - 360°

LEGENDA CODICI



MOMENTO TORCENTE

alesaggi	32	40	50	63	80	100
Momento torcente Nm/bar	1,2	2,25	3,9	7,3	15,7	26,3

TECHNICAL CHARACTERISTICS

Magnetic double acting with limit switch decelerators and regulation of rotation angle, also operates without lubrication, end covers fixed directly on the tube.

bores	*32*	*40*	*50*	*63*	*80*	*100*
decelerator length	*20*	*25*	*25*	*30*	*30*	*35*
rotation angle adjustment	*±5°*					

fixing.....*in the central body by means of screws and accessories series ISO 6431*
versions.....*female pinion - male pinion - magnetic piston*

OPERATING CHARACTERISTICS

fluid .....*filtered air with or without lubrication*
max. pressure ..... *10 bar*
temperature .....*0°C ÷80°C (-20°C with dry air)*

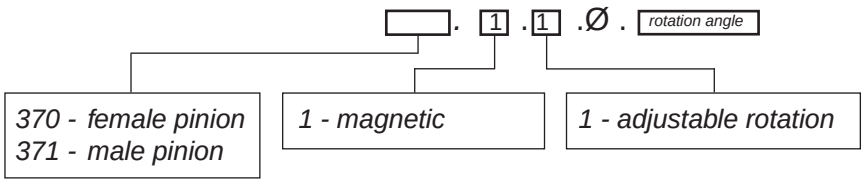
MANUFACTURING CHARACTERISTICS

end covers .....*die-cast aluminium alloy varnished black*
tube .....*hard oxidised aluminium alloy*
piston .....*single block in special rubber NBR vulcanised on metal disk with permanent plastoferrite magnet*
main body.....*anodised aluminium alloy*
pinion.....*hardened and tempered steel*
rack..... *C45 steel*
seals .....*NBR*

ROTATION ANGLES AVAILABLE

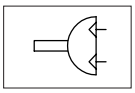
90° - 180° - 270° - 360°

CODE LEGEND

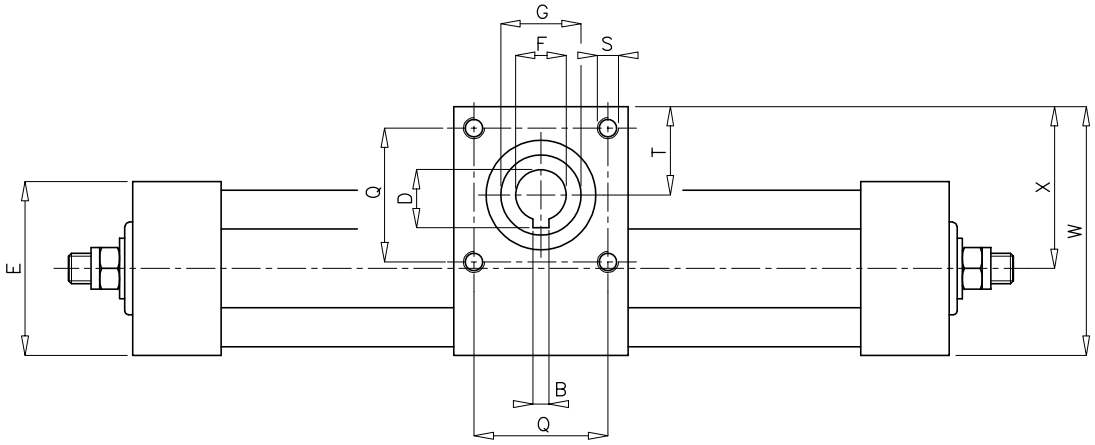


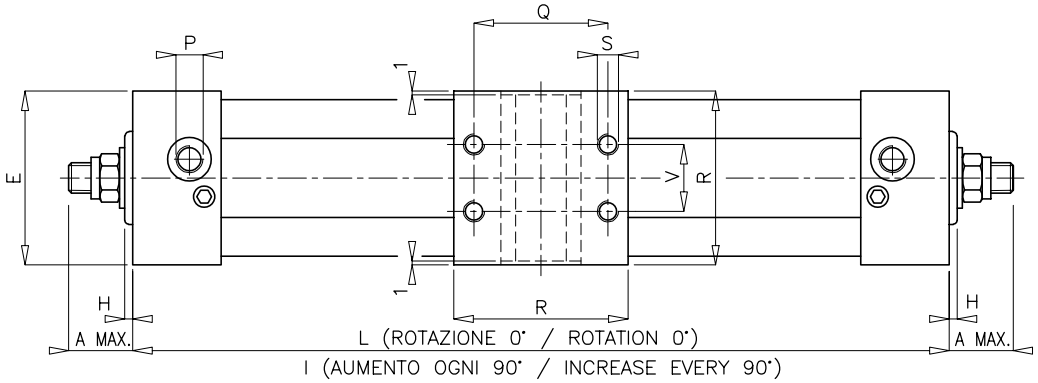
TORQUE

bores	*32*	*40*	*50*	*63*	*80*	*100*
Torque Nm/bar	*1,2*	*2,25*	*3,9*	*7,3*	*15,7*	*26,3*



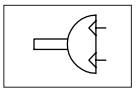
VERSIONE PIGNONE FEMMINA
FEMALE PINION VERSION



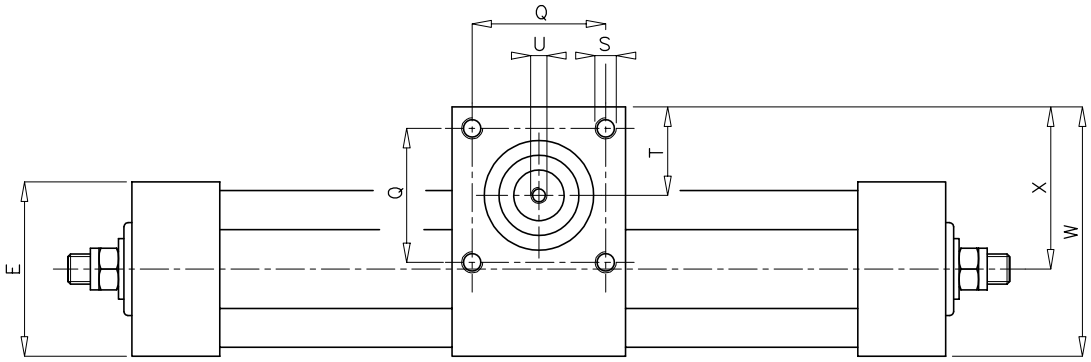


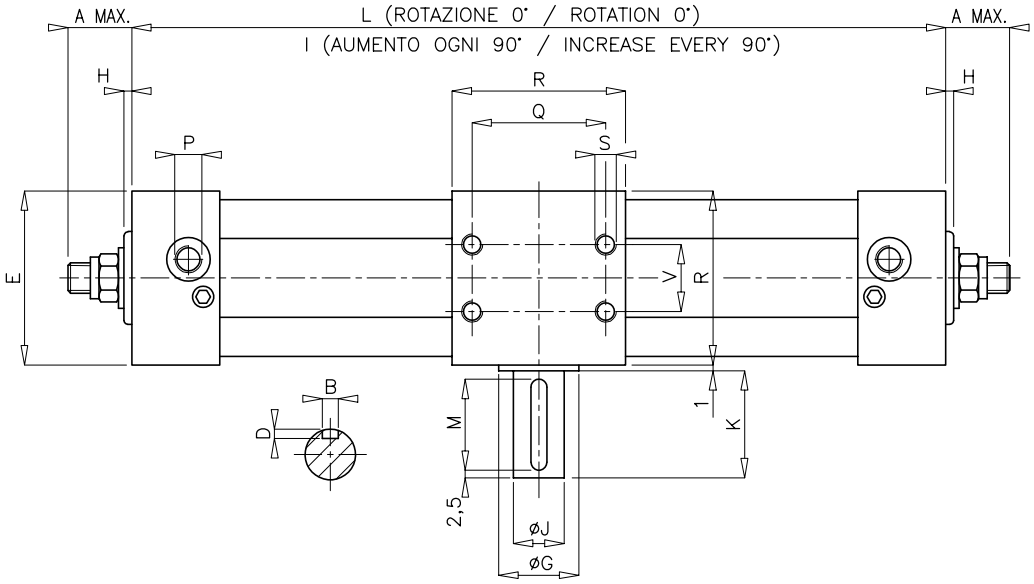
VERSIONE PIGNONE FEMMINA codice. **370.11.** Ø. angolo di rotazione
FEMALE PINION VERSION *code.* ***370.11.*** *Ø. rotation angle*

ALESAGGIO *BORE*	A	B	D	E	F	G	H	L	P	Q	R	S	T	V	W	X	I
32	19	5	17,3	45	14	25	4	158	1/8"	33	50	M 6	25	18	71,5	50,5	47
40	19	5	17,3	52	14	25	4	190	1/4"	40	60	M 6	30	22	82	53	56
50	21	6	17,3	65	19	30	4	205	1/4"	50	65	M 8	32,5	25	94	60,5	63
63	21	6	22,8	75	19	30	4	237	3/8"	60	75	M 8	37	35	110	65,5	75
80	27	8	22,8	95	24	45	4	279	3/8"	80	100	M 10	50	50	142	92,5	99
100	29	8	28,3	115	28	50	4	303	1/2"	80	115	M 10	54	60	156,5	100	107



VERSIONE PIGNONE MASCHIO
MALE PINION VERSION





VERSIONE PIGNONE MASCHIO codice. **371.11.** Ø. angolo di rotazione
MALE PINION VERSION *code.* ***371.11****. Ø. rotation angle*

ALESAGGIO *BORE*	A	B	D	E	ØJ	ØG	H	K	L	M	P	Q	R	S	T	U	V	W	X	I
32	19	5	3	45	14	25	2,5	30	158	25	1/8"	33	50	M 6	25	M 5	18	71,5	50,5	47
40	19	5	3	52	14	25	3	30	190	25	1/4"	40	60	M 6	30	M 5	22	82	53	56
50	21	6	3,5	65	19	30	3	40	205	35	1/4"	50	65	M 8	32,5	M 6	25	94	60,5	63
63	21	6	3,5	75	24	30	4	40	237	35	3/8"	60	75	M 8	37	M 8	35	110	65,5	75
80	27	8	4	95	28	45	4	50	279	45	3/8"	80	100	M 10	50	M 8	50	142	92,5	99
100	29	10	5	115	38	45	5	50	303	45	1/2"	80	115	M 10	54	M 10	60	156,5	100	107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CARATTERISTICHE TECNICHE

A doppio effetto con deceleratori (magnetico su richiesta).

alesaggi	32	40	50	63	80	100	125	160	200
lunghezza deceleratore	27	30	30	35	35	40	40	50	50

fissaggi .....flangia anteriore - flangia posteriore - piedini - cerniera anteriore - cerniera posteriore - cerniera intermedia - controcerniera verticale - controcerniera orizzontale - forcella su stelo - a tiranti sporgenti (solo su richiesta)
versioni .....stelo semplice - stelo passante
versioni speciali .....tandem - doppia stazione - cilindro doppio

CARATTERISTICHE FUNZIONALI

fluido ..... aria filtrata con o senza lubrificazione
pressione max. .....10 bar
temperatura .....0°C ÷ 80°C (-20°C con aria secca)

CARATTERISTICHE COSTRUTTIVE

testate ..... in lega di alluminio verniciate nere
camicia ..... in alluminio ossidato duro
stelo ..... in acciaio C45 cromato (su richiesta inox)
boccola guida stelo ..... autolubrificante in bronzo sinterizzato
pistone ..... monoblocco in gomma speciale NBR vulcanizzata su disco metallico (con magnete permanente in plastoferrite su richiesta)
guarnizioni ..... in gomma speciale NBR
tiranti ..... acciaio A37 zincati

LEGENDA CODICI

□ . □ . □ . Ø .corsa

310 - stelo semplice 311 - stelo passante 312 - tandem 313 - doppia stazione 314 - cilindro doppio	0 - stelo cromato 1 - stelo inox 2 - stelo cromato tiranti sporgenti 3 - stelo inox tiranti sporgenti	0 - non magnetico 1 - magnetico (pistone guidato)

TECHNICAL CHARACTERISTICS

Double-acting with deceleration (magnetic on request).

bores	*32*	*40*	*50*	*63*	*80*	*100*	*125*	*160*	*200*
decelerator length	*27*	*30*	*30*	*35*	*35*	*40*	*40*	*50*	*50*

fixing *.....front flange - rear flange - feet - front bracket - rear bracket - intermediate bracket - vertical counter bracket - horizontal counter bracket - fork on piston rod - with jutting tie rods (only on request)*
versions *.....simple piston rod - double piston rod*
special versions *.....tandem - double station - double cylinder*

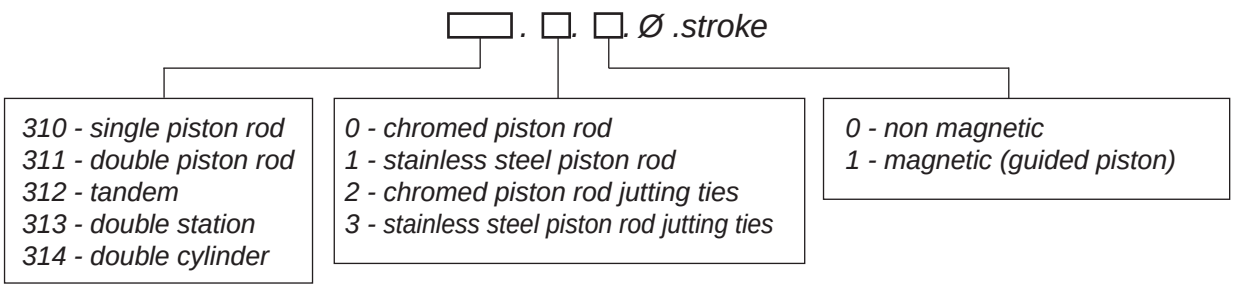
FUNCTIONING CHARACTERISTICS

fluid *.....filtered air with or without librication*
max. pressure *..... 10 bar*
temperature *..... 0°C ÷ 80°C (-20°C with dry air)*

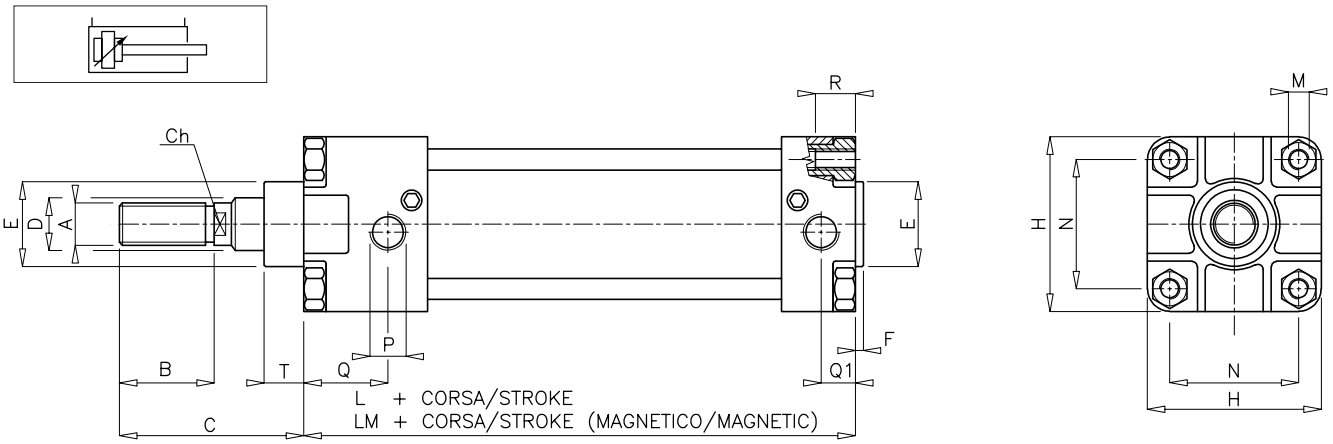
MANUFACTURING CHARACTERISTICS

end covers *.....black varnished aluminium alloy*
tube *.....hard oxidised aluminium*
piston rod *.....chromed C45 steel (stainless steel on request)*
piston rod guide bushing *.....self-lubricating in sinterised bronze*
piston *.....monoblock in special rubber NBR vulcanised on metallic disk (with permanent magnet in plastoferrite on request)*
seals *..... special rubber NBR*
rods *..... steel A 37 galvanised*

CODE LEGEND

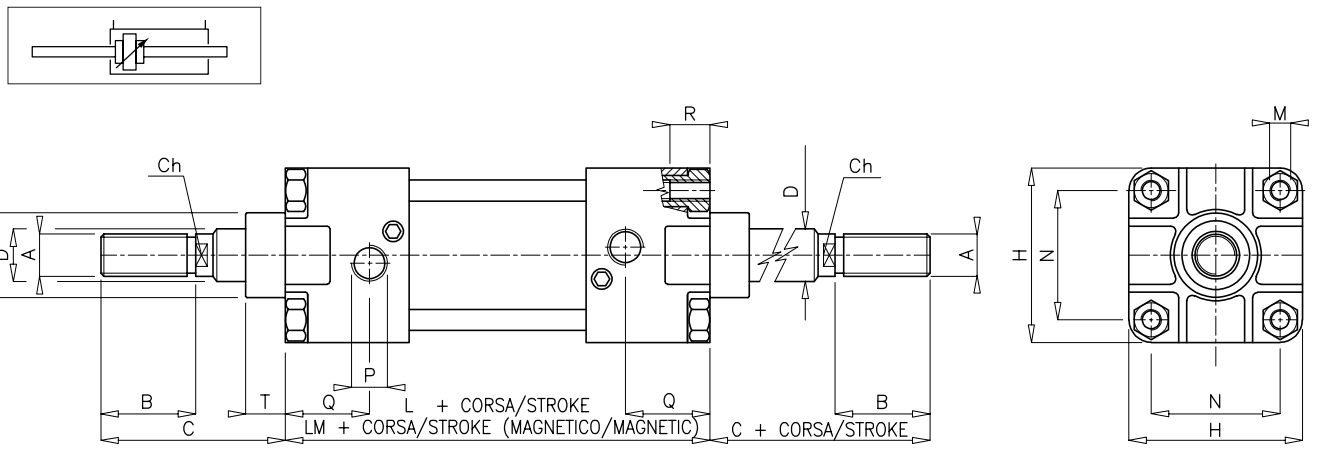


Cilindri CNOMO
Cylinders CNOMO



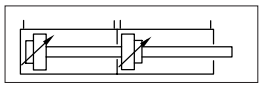
VERSIONE STANDARD codice. **310.00** Ø.corsa
STANDARD VERSION *code.* ***310.00*** *Ø.stroke*

ALESAGGIO *BORE*	A	B	Ch	C	D	E	F	H	L	M	N	P	Q	Q1	R	T	LM
32	M 10x1,5	20	8	45	12	25	3	45	80	M 6	33	1/8"	24	14	10	15	87
40	M 16x1,5	36	13	70	18	32	3	52	110	M 6	40	1/4"	32	13	10	15	115
50	M 16x1,5	36	13	70	18	32	3	65	110	M 8	49	1/4"	32	13	12	15	113
63	M 20x1,5	46	17	85	22	45	3	75	125	M 8	59	3/8"	36	18	12	20	130
80	M 20x1,5	46	17	85	22	45	3	95	125	M10	75	3/8"	36	18	14	20	130
100	M 27x2	63	22	110	30	55	3	115	145	M10	90	1/2"	39	20	14	20	150
125	M 27x2	63	22	110	30	55	3	140	145	M12	110	1/2"	39	20	15	20	153
160	M 36x2	85	32	135	40	65	4	180	180	M16	140	3/4"	47	27	18	25	200
200	M 36x2	85	32	135	40	65	4	220	180	M16	175	3/4"	47	27	18	25	200

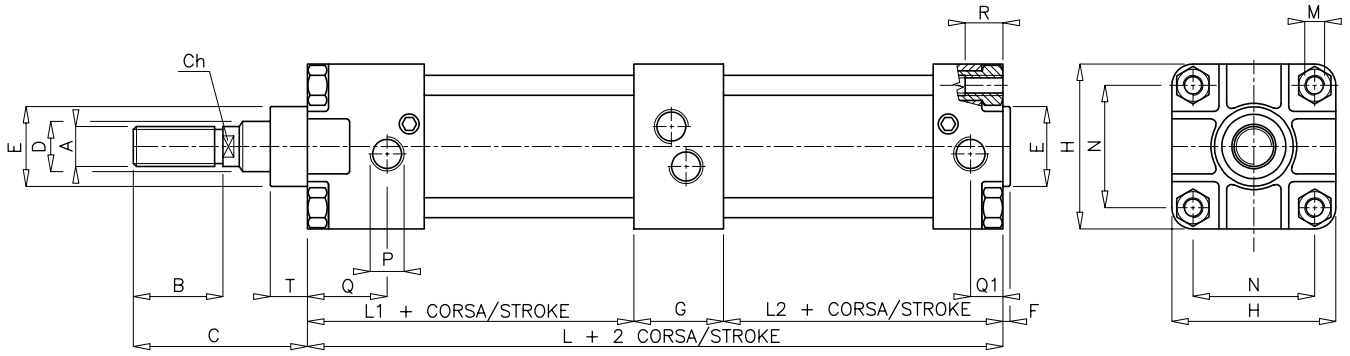


VERSIONE STANDARD stelo passante codice. **311.00** Ø.corsa
STANDARD VERSION *through piston rod code.* ***311.00*** *Ø.stroke*

ALESAGGIO *BORE*	A	B	Ch	C	D	E	H	L	M	N	P	Q	R	T	LM
32	M 10x1,5	20	8	45	12	25	45	90	M 6	33	1/8"	24	10	15	97
40	M 16x1,5	36	13	70	18	32	52	130	M 6	40	1/4"	32	10	15	135
50	M 16x1,5	36	13	70	18	32	65	130	M 8	49	1/4"	32	12	15	133
63	M 20x1,5	46	17	85	22	45	75	143	M 8	59	3/8"	36	12	20	148
80	M 20x1,5	46	17	85	22	45	95	143	M10	75	3/8"	36	14	20	148
100	M 27x2	63	22	110	30	55	115	164	M10	90	1/2"	39	14	20	169
125	M 27x2	63	22	110	30	55	140	164	M12	110	1/2"	39	15	20	172
160	M 36x2	85	32	135	40	65	180	200	M16	140	3/4"	47	18	25	220
200	M 36x2	85	32	135	40	65	220	200	M16	175	3/4"	47	18	25	220



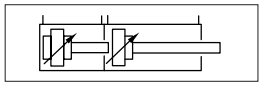
MOLTIPLICATORE DI FORZA
POWER MULTIPLIER



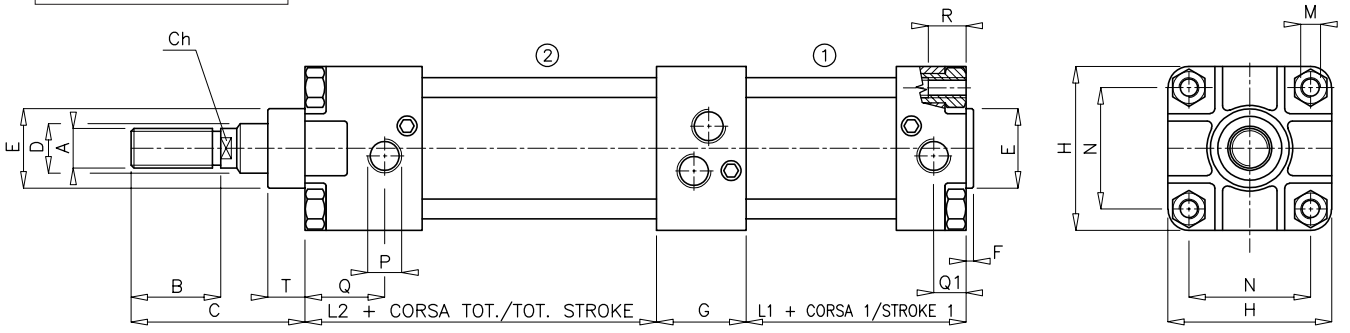
CILINDRO TANDEM * VERSIONE STANDARD codice. **312.00** Ø.corsa
TANDEM CYLINDER* STANDARD VERSION *code.* ***312.00*** *Ø.stroke*

ALESAGGIO *BORE*	A	B	Ch	C	D	E	F	G	H	L	L1	L2	M	N	P	Q	Q1	R	T
32	M 10x1,5	20	8	45	12	25	3	23	45	129	58	48	M 6	33	1/8"	24	14	10	15
40	M 16x1,5	36	13	70	18	32	3	30	52	177	83	64	M 6	40	1/4"	32	13	10	15
50	M 16x1,5	36	13	70	18	32	3	30	65	177	83	64	M 8	49	1/4"	32	13	12	15
63	M 20x1,5	46	17	85	22	45	3	32	75	198	92	74	M 8	59	3/8"	36	18	12	20
80	M 20x1,5	46	17	85	22	45	3	32	95	198	92	74	M10	75	3/8"	36	18	14	20
100	M 27x2	63	22	110	30	55	3	45	115	238	106	87	M10	90	1/2"	39	20	14	20
125	M 27x2	63	22	110	30	55	3	45	140	238	106	87	M12	110	1/2"	39	20	15	20
160	M 36x2	85	32	135	40	65	4	53	180	293	130	110	M16	140	3/4"	47	27	18	25
200	M 36x2	85	32	135	40	65	4	53	220	293	130	110	M16	175	3/4"	47	27	18	25

*A richiesta ulteriori camere di spinta / *Other thrust chambers on request*



STAZIONI MULTIPLE
MULTIPLE STATION



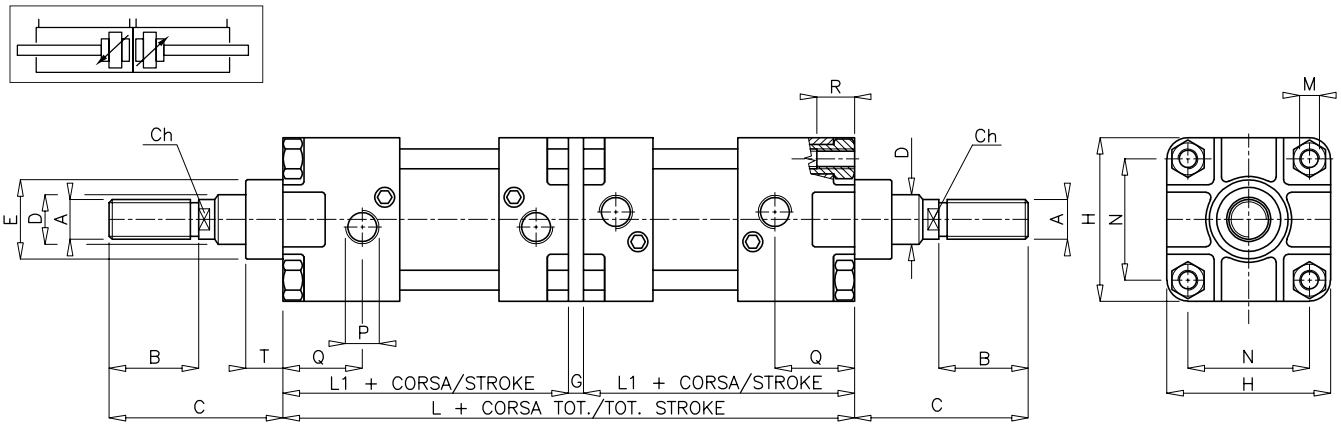
CILINDRO DOPPIA STAZIONE * VERSIONE STANDARD codice. **313.00** Ø.corsa totale **
DOUBLE STATION CYLINDER* STANDARD VERSION *code.* ***313.00*** *Ø.overall stroke* **

ALESAGGIO *BORE*	A	B	Ch	C	D	E	F	G	H	L1	L2	M	N	P	Q	Q1	R	T
32	M 10x1,5	20	8	45	12	25	3	33	45	48	68	M 6	33	1/8"	24	14	10	15
40	M 16x1,5	36	13	70	18	32	3	36	52	64	93	M 6	40	1/4"	32	13	10	15
50	M 16x1,5	36	13	70	18	32	3	36	65	64	93	M 8	49	1/4"	32	13	12	15
63	M 20x1,5	46	17	85	22	45	3	42	75	74	102	M 8	59	3/8"	36	18	12	20
80	M 20x1,5	46	17	85	22	45	3	42	95	74	102	M10	75	3/8"	36	18	14	20
100	M 27x2	63	22	110	30	55	3	49	115	87	116	M10	90	1/2"	39	20	14	20
125	M 27x2	63	22	110	30	55	3	49	140	87	116	M12	110	1/2"	39	20	15	20
160	M 36x2	85	32	135	40	65	4	69	180	110	145	M16	140	3/4"	47	27	18	25
200	M 36x2	85	32	135	40	65	4	69	220	110	145	M16	175	3/4"	47	27	18	25

* A richiesta ulteriori stazioni / *Other stations on request*

** In fase di ordinazione indicare anche la corsa della 1ª stazione / *When ordering also indicate the 1st station stroke*

Cilindri CNOMO
Cylinders CNOMO



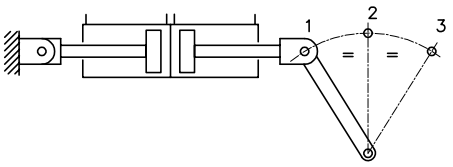
CILINDRO DOPPIO VERSIONE STANDARD codice. **314.00** Ø.corsa totale *
DOUBLE CYLINDER STANDARD VERSION *code.* ***314.00*** *Ø.overall stroke **

ALESAGGIO *BORE*	A	B	Ch	C	D	E	G	H	L	L1	M	N	P	Q	R	T
32	M 10x1,5	20	8	45	12	25	7	45	167	80	M 6	33	1/8"	24	10	15
40	M 16x1,5	36	13	70	18	32	7	52	227	110	M 6	40	1/4"	32	10	15
50	M 16x1,5	36	13	70	18	32	7	65	227	110	M 8	49	1/4"	32	12	15
63	M 20x1,5	46	17	85	22	45	7	75	257	125	M 8	59	3/8"	36	12	20
80	M 20x1,5	46	17	85	22	45	7	95	257	125	M10	75	3/8"	36	14	20
100	M 27x2	63	22	110	30	55	7	115	297	145	M10	90	1/2"	39	14	20
125	M 27x2	63	22	110	30	55	7	140	297	145	M12	110	1/2"	39	15	20
160	M 36x2	85	32	135	40	65	10	180	370	180	M16	140	3/4"	47	18	25
200	M 36x2	85	32	135	40	65	10	220	370	180	M16	175	3/4"	47	18	25

* In fase di ordinazione indicare sempre le due corse separatamente / *When ordering always indicate the two strokes separately*

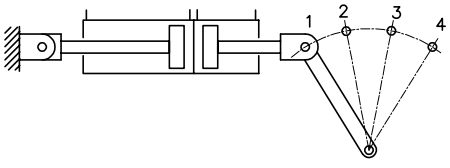
ESEMPIO FUNZIONALE CILINDRI DOPPI
FUNCTIONAL EXAMPLE DOUBLE CYLINDERS

Schema di posizionamento cilindri a corse uguali
Positioning diagram cylinders with equal strokes



1

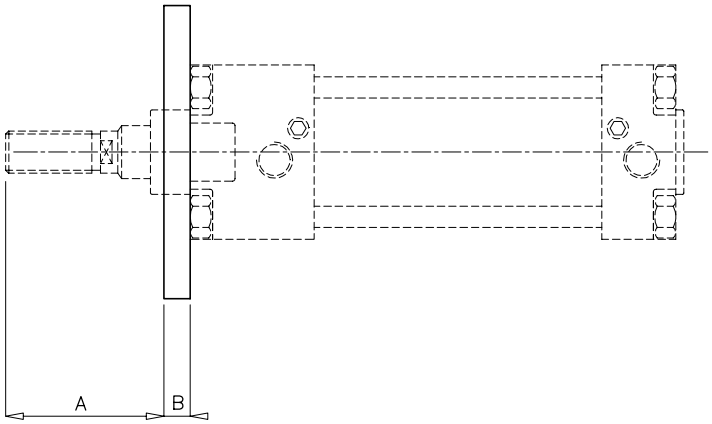
Schema di posizionamento cilindri a corse diverse
Positioning diagram cylinders with different strokes

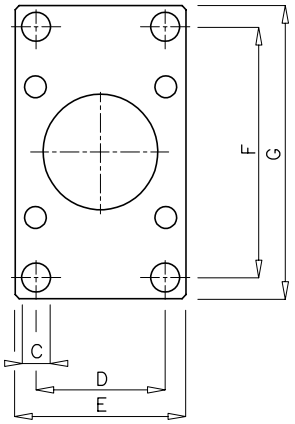


2

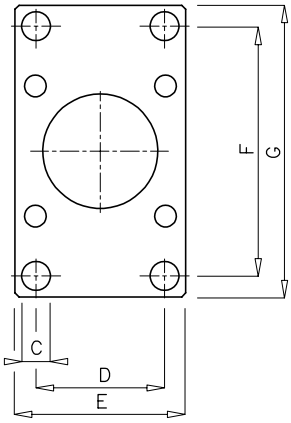
La scelta del cilindro doppio si rende necessaria quando si deve ottenere lo spostamento di carichi a tre o quattro posizioni.
Con un cilindro doppio a corse uguali si ottengono tre posizioni come illustrato nella figura 1.
Con un cilindro doppio a corse diverse si possono ottenere quattro posizioni come illustrato nella figura 2.

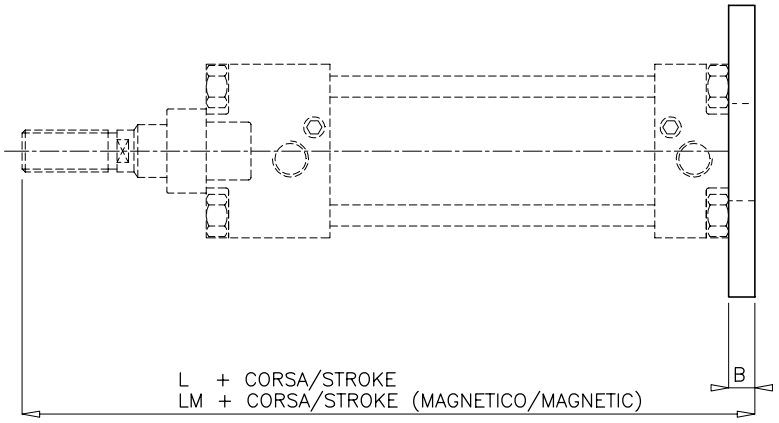
It is necessary to choose the double cylinder when you have to obtain the movement of loads by three or four positions.
A double cylinder with equal strokes allows achieving three positions as illustrated in figure 1.
A double cylinder with different strokes allows achieving four positions as illustrated in figure 2.





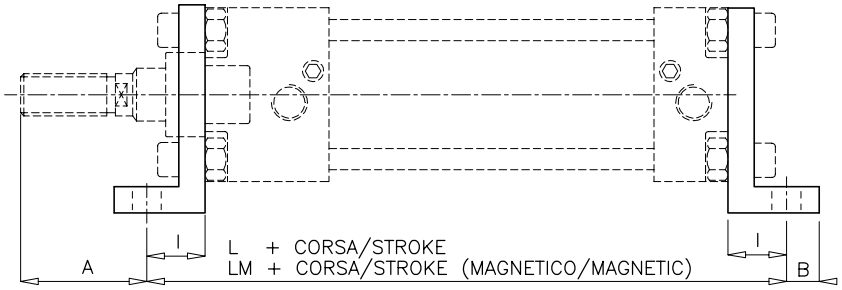
FLANGIA ANTERIORE codice. **319.01** Ø.cilindro
FRONT FLANGE *code.* ***319.01*** *Ø.cylinder*

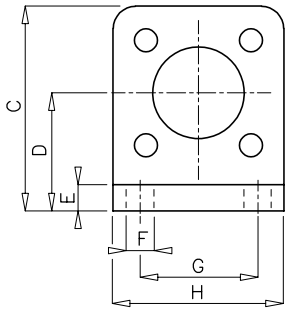




FLANGIA POSTERIORE codice. **319.02** Ø.cilindro
REAR FLANGE *code.* ***319.02*** *Ø.cylinder*

ALESAGGIO *BORE*	A	B	C	D	E	F	G	L	LM
32	37	8	9	33	45	68	80	133	140
40	62	8	9	40	52	78	90	188	193
50	60	10	11	49	65	94	110	190	193
63	75	10	11	59	75	104	120	220	225
80	73	12	14	75	95	130	150	222	227
100	98	12	14	90	115	150	170	267	272
125	94	16	18	110	140	180	205	271	279
160	115	20	22	140	180	228	260	335	355
200	115	20	22	175	220	268	300	335	355

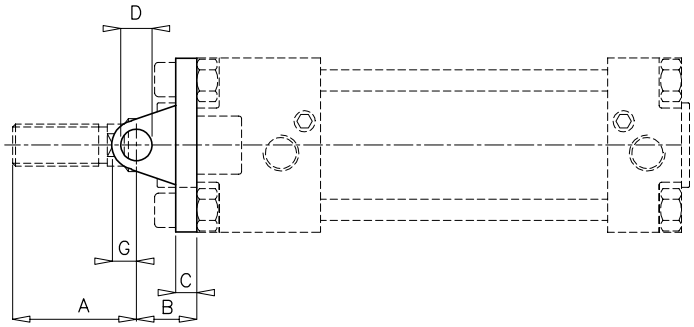


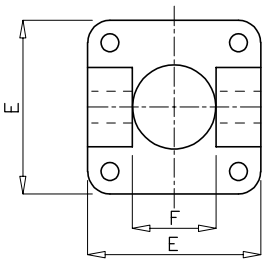


PIEDINO codice. **319.03** Ø.cilindro

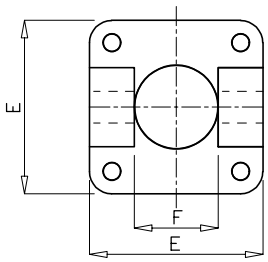
FOOT *code.* ***319.03*** *Ø.cylinder*

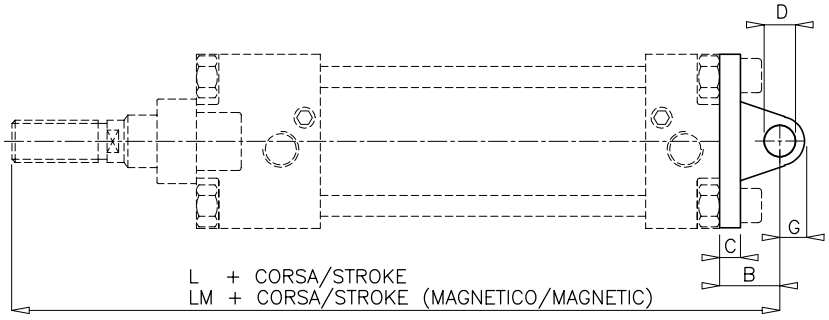
ALESAGGIO *BORE*	A	B	C	D	E	F	G	H	I	L	LM
32	18	8	54	32	8	9	28	45	27	134	141
40	43	8	62	36	8	9	36	52	27	164	169
50	35	10	77	45	10	11	45	65	35	180	183
63	50	10	87	50	10	11	55	75	35	195	200
80	42	12	110	63	12	14	70	95	43	211	216
100	67	12	130	73	12	14	90	115	43	231	236
125	58	16	161	91	16	18	100	140	52	249	257
160	73	18	205	115	20	22	130	180	62	304	324
200	73	18	245	135	20	22	170	220	62	304	324



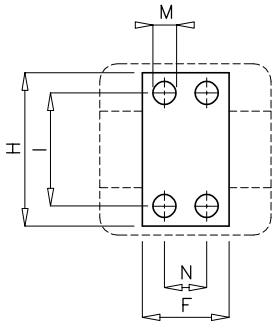


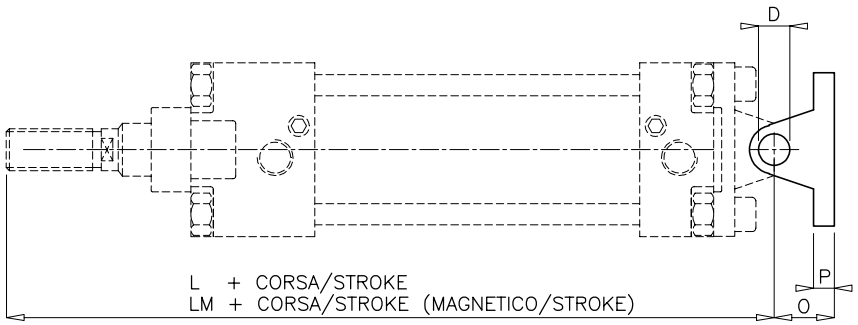
CERNIERA ANTERIORE codice. **319.05** Ø.cilindro
FRONT BRACKET *code.* ***319.05*** *Ø.cylinder*





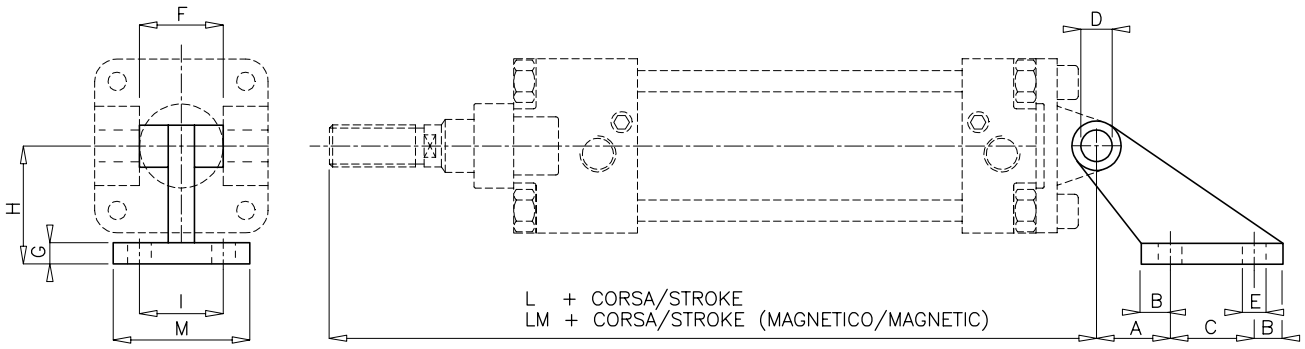
CERNIERA POSTERIORE codice. **319.06** Ø.cilindro
REAR BRACKET *code.* ***319.06*** *Ø.cylinder*





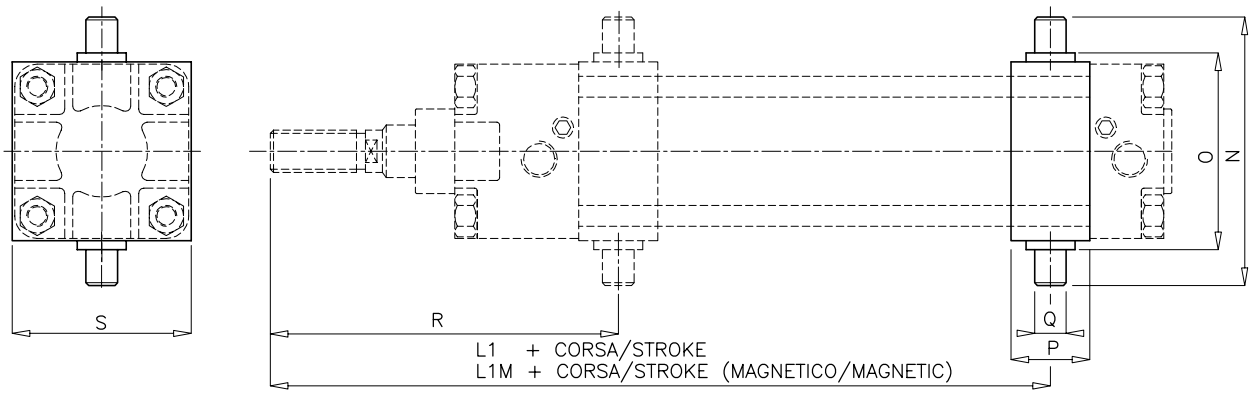
CONTROCERNIERA VERTICALE codice. **319.07** Ø.cilindro
VERTICAL COUNTER-BRACKET *code.* ***319.07*** *Ø.cylinder*

ALESAGGIO *BORE*	A	B	C	D	E	F	G	H	I	L	LM	M	N	O	P
32	27	18	8	8	45	26	11	40	28	143	150	7	10	18	8
40	46	24	8	12	52	33	11	52	38	204	209	9	16	26	10
50	44	26	10	12	65	33	13	52	38	206	209	9	16	26	10
63	55	30	10	16	75	47	17	75	54	240	245	11	25	34	12
80	53	32	12	16	95	47	17	75	54	242	247	11	25	34	12
100	73	37	12	20	115	57	21	115	90	292	297	13	32	41	16
125	69	41	16	20	140	57	29	115	90	296	304	13	32	41	16
160	80	55	20	25	180	72	30	180	150	370	390	17	43	55	20
200	80	55	20	25	220	72	30	180	150	370	390	17	43	55	20



CONTROCERNIERA ORIZZONTALE A 90° codice. **319.08** Ø.cilindro

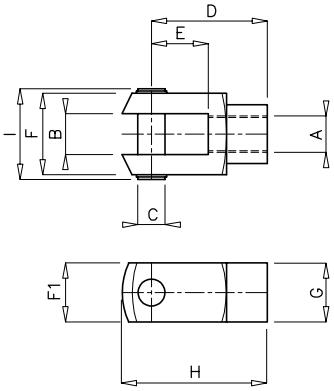
HORIZONATAL COUNTER-BRACKET 90° *code.* ***319.08*** *Ø.cylinder*



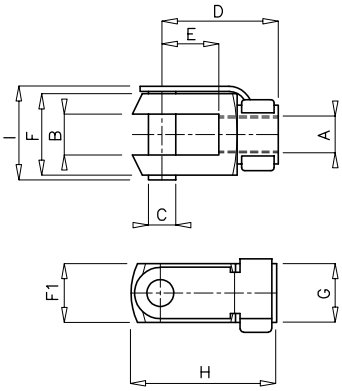
CERNIERA INTERMEDIA FISSA codice. **319.09** Ø.cilindro

FIXED INTERMEDIATE BRACKET *code.* ***319.09*** *Ø.cylinder*

ALESAGGIO *BORE*	A	B	C	D	E	F	G	H	I	L	LM	L1	L1M	M	N	O	P	Q	R	S
32	18	8,5	20	8	7	26	8	32	25	143	150	93	100	41	74	50	20	12	87	50
40	25	11	32	12	9	33	10	45	32	204	209	142	147	52	95	63	20	16	127	60
50	25	11	32	12	9	33	10	45	32	206	209	142	145	52	105	73	20	16	127	70
63	32	12,5	50	16	11	47	12	63	40	240	245	162	167	63	130	90	30	20	151	80
80	32	12,5	50	16	11	47	12	63	40	242	247	162	167	63	148	108	30	20	151	100
100	40	16,5	70	20	13	57	16	90	50	292	297	201	206	80	181	131	30	25	183	130
125	40	16,5	70	20	13	57	16	90	50	296	304	201	209	80	209	159	30	25	183	150
160	50	22	110	25	17	72	20	140	63	370	390	245	265	110	264	200	40	32	225	200
200	50	22	110	25	17	72	20	140	63	370	390	245	265	110	314	250	40	32	225	250

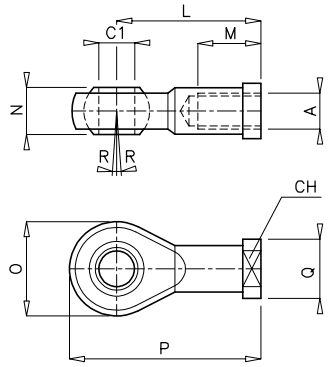


FORCELLA CON PERNO codice. **319.10** Ø .cilindro
FORK WITH PIN *code.* ***319.10*** *Ø .cylinder*

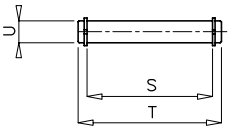


ESCLUSI ALESAGGI 160 E 200
ESCLUDING BORES 160 E 200

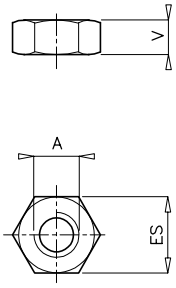
FORCELLA CON CLIPS codice. **319.11** Ø .cilindro
FORK WITH CLIPS *code.* ***319.11*** *Ø .cylinder*



SNODO SFERICO codice. **319.12** Ø .cilindro
BALL JOINT *code.* ***319.12*** *Ø .cylinder*



PERNO CERNIERA codice. **319.13** Ø .cilindro
BRACKET PIN *code.* ***319.13*** *Ø .cylinder*



DADO PER STELO codice. **319.14** Ø .cilindro
PISTON ROD NUT *code.* ***319.14*** *Ø .cylinder*

Sono previsti **KIT DI GUARNIZIONI DI RICAMBIO** su tutte le serie di cilindri
SPARE SEAL KITS *are provided for all cylinder series*

ALESAGGIO *BORE*	A	B	Ch	C	C1	ES	D	E	F	F1	G	H	I	L	M	N	O	P	Q	R	S	T	U	V
32	M 10x1,5	11	17	8	10	17	36	16	22	22	18	45	29	43	15	14	26	56	19	13°	46	53	8	6
40	M 16x1,5	18	22	12	16	24	51	25	36	26	26	64	43	64	24	21	38	83	27	15°	56	63	12	8
50	M 16x1,5	18	22	12	16	24	51	25	36	26	26	64	43	64	24	21	38	83	27	15°	67	74	12	8
63	M 20x1,5	22	30	16	20	30	63	33	45	34	34	80	53	77	30	25	46	103	37	15°	77	84	16	9
80	M 20x1,5	22	30	16	20	30	63	33	45	34	34	80	53	77	30	25	46	103	37	15°	96	103	16	9
100	M 27x2	30	41	20	30	41	85	40	63	42	42	105	72	110	45	37	68	144	50	15°	115	124	20	12
125	M 27x2	30	41	20	30	41	85	40	63	42	42	105	72	110	45	37	68	144	50	15°	141	150	20	12
160	M 36x2	40	50	25	35	55	115	40	80	50	50	140	95	125	60	43	80	165	56	15°	127	141	25	14
200	M 36x2	40	50	25	35	55	115	40	80	50	50	140	95	125	60	43	80	165	56	15°	127	141	25	14

CARATTERISTICHE TECNICHE

alesaggi	20	27	35	40	50
attacchi aria	1/8"				

fissaggi..... a cartuccia sfilabile
versioni..... semplice effetto - semplice effetto stelo antirotante - semplice effetto con valvola di sicurezza - doppio effetto

CARATTERISTICHE FUNZIONALI

fluido ..... aria filtrata e lubrificata
pressione max. .....10 bar
temperatura .....0°C ÷ 90°C (-20°C con aria secca)

CARATTERISTICHE COSTRUTTIVE

testate ..... ottone o in lega di alluminio
camicia ..... alluminio ox. duro
stelo ..... in acciaio C45 cromato per le versioni S.E. - D.E.
in acciaio Fe 37 zincato per le versioni S.E. stelo antirotante
pistone .....in lega di alluminio
guarnizioni ..... NBR (per alte temperature in VITON su richiesta)

LEGENDA CODICI

306 . □ . □ . Ø.corsa

0 - S.E. stelo semplice 1 - S.E. stelo antirotante 2 - D.E.	0 - senza valvola 1 - con valvola

TECHNICAL CHARACTERISTICS

bores	20	27	35	40	50
air connection	1/8"				

fixing .... with slide out cartridge
versions ... single acting - single acting with non rotating piston rod - single acting with safety valve - double-acting

FUNCTIONING CHARACTERISTICS

fluid .... filtered and lubricated air
max. pressure .... 0 bar
temperature ....0°C ÷ 90°C (-20°C with dry air)

MANUFACTURING CHARACTERISTICS

end covers .... brass or aluminium alloy
tube .... hard oxidised aluminium
piston rod............................chromed C45 steel for S.A - D.A. versions
galvanized Fe 37 steel for S.A. version non-rotating piston rod
piston .... aluminium alloy
seals .... NBR (on request VITON for high temperatures)

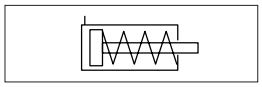
CODE LEGEND

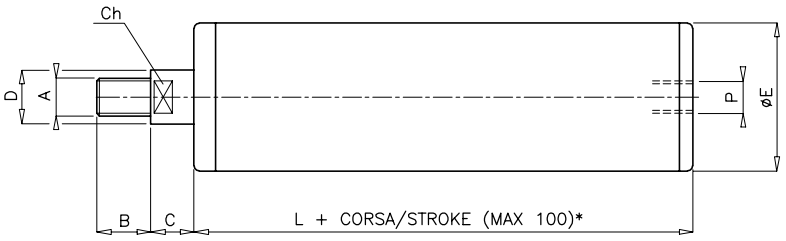
306 . □. □. Ø.stroke

0 - S.A. simple piston rod
1 - S.A. non rotating piston rod
2 - D.A.

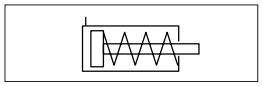
0 - without valve
1 - with valve

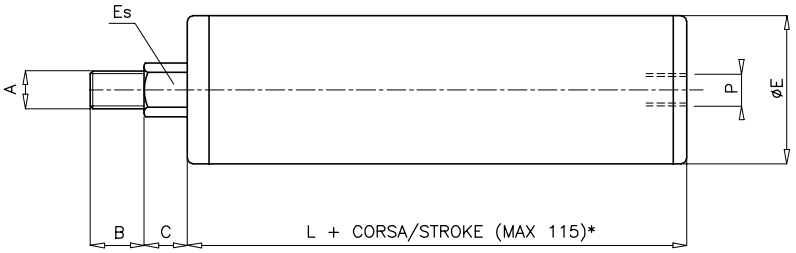
Cilindri pressori
Pressor cylinders



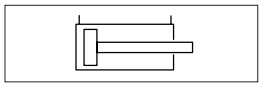


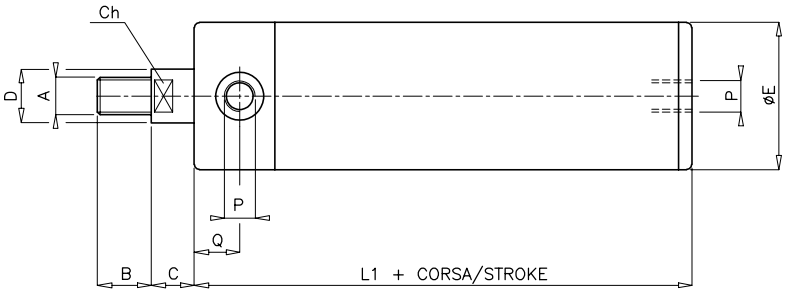
CILINDRO PRESSORE semplice effetto codice. **306.00** Ø.corsa
PRESSOR CYLINDER *single acting code.* ***306.00*** *Ø.stroke*





CILINDRO PRESSORE semplice effetto, stelo antirotante codice. **306.10** Ø.corsa
PRESSOR CYLINDER *single acting, non-rotating piston rod code.* ***306.10*** *Ø.stroke*

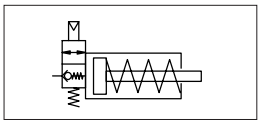




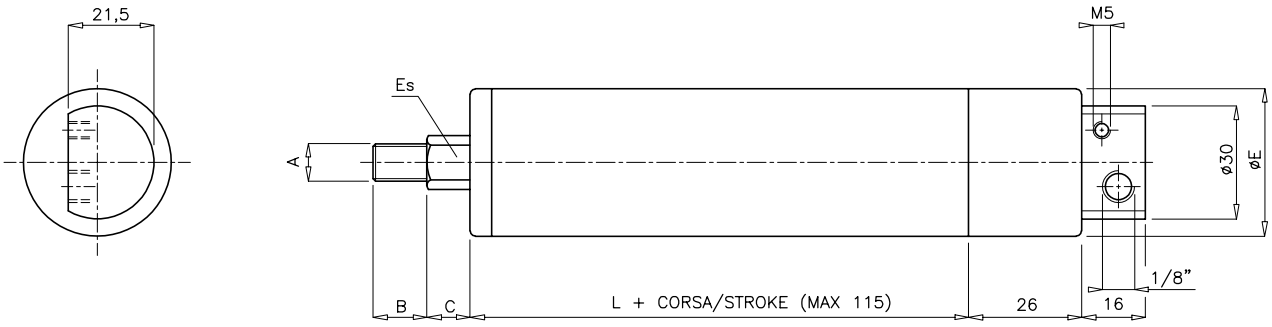
CILINDRO PRESSORE doppio effetto codice. **306.20** Ø.corsa
PRESSOR CYLINDER *double acting code.* ***306.20*** *Ø.stroke*

ALESAGGIO *BORE*	A	B	C	Ch	D	ES	ØE	L	L1	P	Q
20	M 6x1	10	10	5	8	8	25	80	73	1/8"	15
27	M 8x1,25	12	10	8	10	10	31	83	73	1/8"	15
35	M 10x1,5	20	10	13	16	16	40	85	75	1/8"	16
40	M 12x1,75	20	14	13	16	16	45	93	81	1/8"	15
50	M 14x2	20	16	17	20	20	55	112	88	1/8"	17

* Per corse superiori consultare il ns. ufficio tecnico / *For longer strokes contact our technical office*

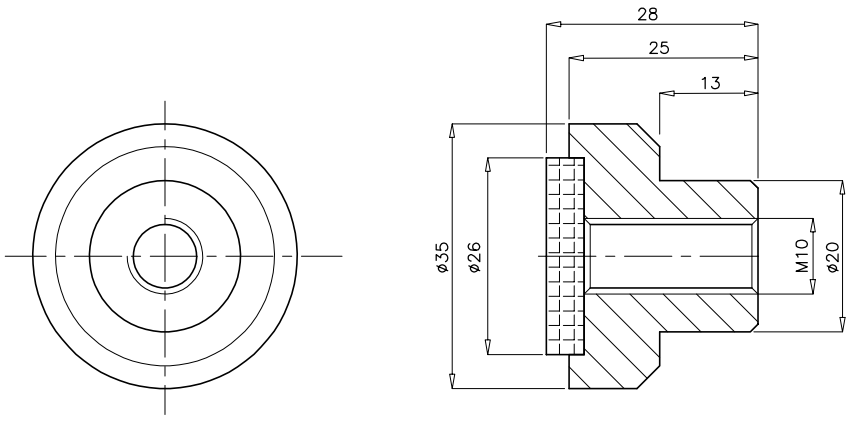


La valvola di sicurezza può essere montata anche sul tipo 306.00 alesaggi 35 - 40 - 50
The safety valve may also be assembled on type 306.00 bore 35 - 40 - 50



CILINDRO PRESSORE semplice effetto, stelo antirotante, valvola di sicurezza codice. **306.11** Ø.corsa
PRESSOR CYLINDER *single acting, non-rotating piston rod, safety valve* *code.* ***306.11*** *Ø.stroke*

ALESAGGIO *BORE*	A	B	C	ØE	ES	L
35	M 10x1,5	20	10	40	16	80
40	M 12x1,75	20	14	45	16	87
50	M 14x2	20	16	55	20	106



TAMPONE IN PLASTICA codice **30905035**
PRESSOR PLASTIC PAD *code.* ***30905035***

CARATTERISTICHE TECNICHE

I cilindri pneumatici della serie 300 sono senza deceleratori e di costruzione semplice ed economica.

Le testate avvitate alla canna complete di sistema di fissaggio permettono di ottenere ingombri molto contenuti.

alesaggi	20	27	35	40	50	60	70	85	100
attacchi aria	1/8"		1/8"			1/4"			
tolleranza corsa	±0,8		±1			±1,3			

fissaggi..... vite anteriore - cerniera posteriore - flangia anteriore - piedini - flangia posteriore - fissaggio su stelo
versioni..... doppio effetto - semplice effetto - stelo semplice - stelo passante - testate ridotte - tandem - doppia stazione - doppio

CARATTERISTICHE FUNZIONALI

fluido .....aria filtrata e lubrificata
pressione max. .....12 bar
temperatura .....0°C ÷ 80°C (-20°C con aria secca)

CARATTERISTICHE COSTRUTTIVE

testate ..... in lega di alluminio
camicia ..... alluminio ox. duro
stelo .....in acciaio C45 cromato
boccola guida stelo..... autolubrificante in bronzo sinterizzato
pistone ..... in lega di alluminio
guarnizioni ..... NBR (per alte temperature in VITON su richiesta)
anello guida pistone .....resina acetalica ad alta scorrevolezza

CORSE STANDARD DISPONIBILI VALIDE PER TUTTI GLI ALESAGGI A DOPPIO EFFETTO

mm 10 - 15 - 20 - 25 - 30 - 35 - 40 - 50 - 60 - 70 - 75 - 80 - 100 - 120 - 125 - 130 - 140 - 150 - 160 - 170 - 175 - 180 - 200 - 250 - 300 - 350 - 400 - 450 - 500 - 600 - 700 - 800 - 900 - 1000

CORSA MASSIMA CILINDRI A SEMPLICE EFFETTO

alesaggi	20	27	35	40	50	60	70	85	100
corsa	50	50	50	60	60	70	70	80	100

LEGENDA CODICI

□□. □. □ . Ø .corsa

300 - fissaggio vite anteriore
301 - fissaggio cerniera posteriore
302 - fissaggio flangia anteriore
303 - fissaggio a piedini
304 - fissaggio flangia posteriore
305 - fissaggio su stelo (cil. doppio)

0 - stelo semplice
1 - stelo passante
2 - cilindro tandem
3 - doppia stazione
4 - cilindro doppio

0 - D.E.
2 - S.E.
4 - D.E. testate ridotte
5 - D.E. viton

TECHNICAL CHARACTERISTICS

Pneumatic cylinders series 300 do not have decelerators and are made of simple and cheaper construction.

End covers screwed to the tube completed by fixing system, they keep overall dimensions to a minimum.

bores	*20*	*27*	*35*	*40*	*50*	*60*	*70*	*85*	*100*
air attachments	*1/8"*		*1/8"*			*1/4"*			
stroke tolerances	*±0,8*		*±1*			*±1,3*			

fixing*..... front screw - rear bracket - front flange - feet - rear flange - fixing on piston rod*
versions*.... double acting - single acting - simple piston rod - double piston rod - reduced end covers - tandem - double station - double*

FUNCTIONING CHARACTERISTICS

fluid *.....filtered and lubricated air*
max. pressure *..... 12 bar*
temperature *.....0°C ÷ 80°C (-20°C with dry air)*

MANUFACTURING CHARACTERISTICS

end covers *.....aluminium alloy*
tube*.....hard oxidised aluminium*
piston rod *.....chromed C45 steel*
piston rod guide bush*..... self-lubricating in sintered bronze*
piston *..... aluminium alloy*
seals *..... NBR (on request VITON for high temperatures)*
piston guide ring *..... high flowability acetalic resin*

STANDARD STROKES AVAILABLE FOR ALL DOUBLE-ACTING BORES

mm 10 - 15 - 20 - 25 - 30 - 35 - 40 - 50 - 60 - 70 - 75 - 80 - 100 - 120 - 125 - 130 - 140 - 150 - 160 - 170 - 175 - 180 - 200 - 250 - 300 - 350 - 400 - 450 - 500 - 600 - 700 - 800 - 900 - 1000

MAXIMUM STROKE SINGLE ACTING CYLINDERS

bores	*20*	*27*	*35*	*40*	*50*	*60*	*70*	*85*	*100*
stroke	*50*	*50*	*50*	*60*	*60*	*70*	*70*	*80*	*100*

CODE LEGEND

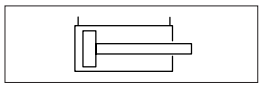
□. □. □. Ø .stroke

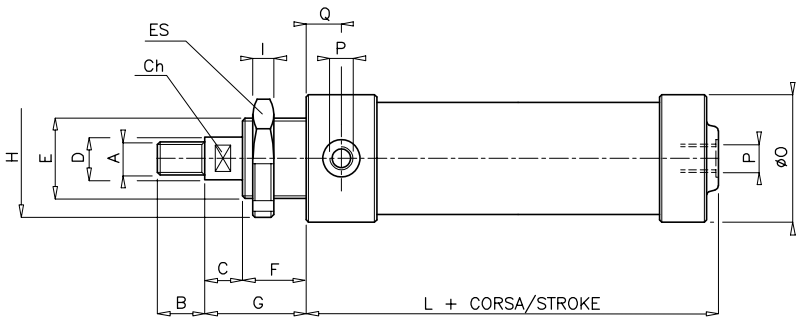
300 - front screw fixing
301 - rear hinge fixing
302 - front flange fixing
303 - foot fixing
304 - rear flange fixing
305 - piston rod fixing (double cyl.)

0 - simple piston rod
1 - double piston rod
2 - tandem cylinder
3 - double station
4 - double cylinder

0 - D.A.
2 - S.A.
4 - D.A. reduced end covers
5 - D.A. viton

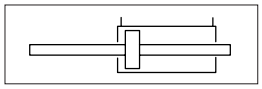
Cilindri con fissaggi integrati
Integrated fixing cylinders

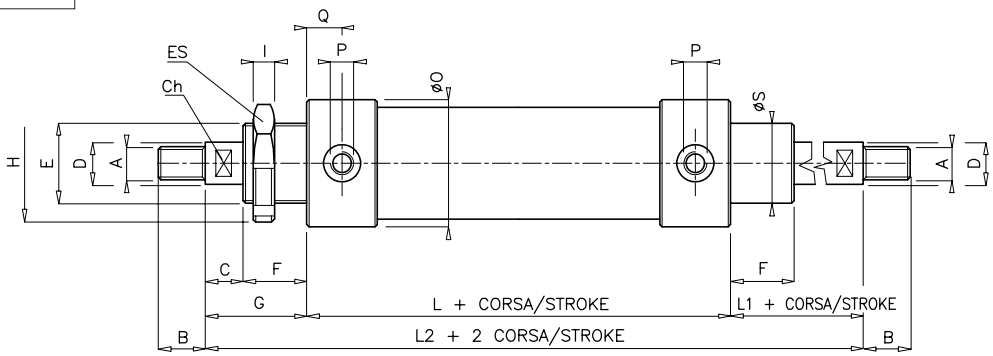




FISSAGGIO VITE ANTERIORE codice. **300.00** Ø.corsa
FRONT SCREW FIXING *code.* ***300.00*** *Ø.stroke*

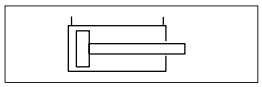
ALESAGGIO *BORE*	A	B	Ch	C	D	E	F	G	H	ES	I	L	ØO	P	Q
20	M 6x1	9	6	8	8	24x2	16	24	-	32	5	45	30	1/8"	9
27	M 8x1,25	12	8	10	10	28x2	20	30	-	36	6	48	35	1/8"	10
35	M 10x1,5	15	10	12	12	32x2	24	36	-	40	7	53	45	1/8"	10
40	M 10x1,5	15	10	12	12	36x2	32	44	-	46	8	57	50	1/8"	11
50	M 12x1,75	18	12	15	14	40x1,5	32	47	58	-	9	61	63	1/8"	11
60	M 14x2	21	15	17	18	45x1,5	32	49	65	-	10	66	73	1/4"	13
70	M 16x2	24	17	18	20	50x1,5	35	53	70	-	11	66	84	1/4"	12
85	M 18x2,5	27	19	20	22	60x2	45	65	80	-	11	74	100	1/4"	13
100	M 20x2,5	30	20	23	24	70x2	50	73	92	-	12	81	116	1/4"	14

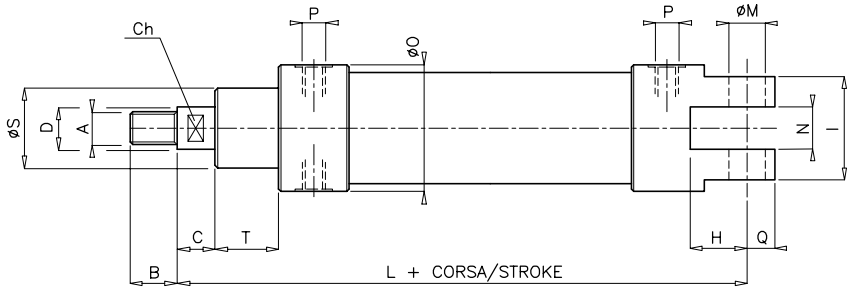




FISSAGGIO VITE ANTERIORE stelo passante codice. **300.10** Ø.corsa
FRONT SCREW FIXING *double piston rod code.* ***300.10*** *Ø.stroke*

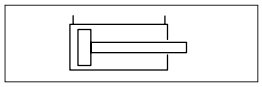
ALESAGGIO *BORE*	A	B	Ch	C	D	E	F	G	H	ES	I	L	L1	L2	ØO	P	Q	ØS
20	M 6x1	9	6	8	8	24x2	16	24	-	32	5	53	24	101	30	1/8"	9	24
27	M 8x1,25	12	8	10	10	28x2	20	30	-	36	6	64	30	124	35	1/8"	10	28
35	M 10x1,5	15	10	12	12	32x2	24	36	-	40	7	66	36	138	45	1/8"	10	32
40	M 10x1,5	15	10	12	12	36x2	32	44	-	46	8	68	44	156	50	1/8"	11	36
50	M 12x1,75	18	12	15	14	40x1,5	32	47	58	-	9	68	47	162	63	1/8"	11	40
60	M 14x2	21	15	17	18	45x1,5	32	49	65	-	10	78	49	176	73	1/4"	13	45
70	M 16x2	24	17	18	20	50x1,5	35	53	70	-	11	74	53	180	84	1/4"	12	50
85	M 18x2,5	27	19	20	22	60x2	45	65	80	-	11	80	65	210	100	1/4"	13	60
100	M 20x2,5	30	20	23	24	70x2	50	73	92	-	12	89	73	235	116	1/4"	14	70

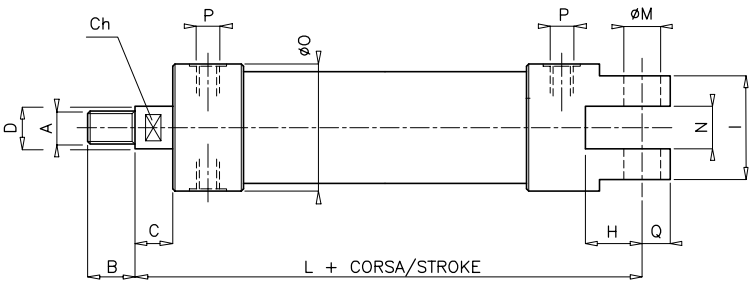




FISSAGGIO CERNIERA POSTERIORE codice. **301.00** Ø.corsa
REAR BRACKET FIXING *code.* ***301.00*** *Ø.stroke*

ALESAGGIO *BORE*	A	B	Ch	C	D	H	I	L	ØM	N	ØO	P	Q	ØS	T
20	M 6x1	9	6	8	8	10	22	85	5	8	30	1/8"	6	24	16
27	M 8x1,25	12	8	10	10	18	25	95	6	9	35	1/8"	7	28	20
35	M 10x1,5	15	10	12	12	22	32	107	8	12	45	1/8"	9	32	24
40	M 10x1,5	15	10	12	12	23	40	122	10	18	50	1/8"	10	36	32
50	M 12x1,75	18	12	15	14	27	50	131	12	25	63	1/8"	13	40	32
60	M 14x2	21	15	17	18	28	58	140	14	26	73	1/4"	15	45	32
70	M 16x2	24	17	18	20	35	71	152	16	35	84	1/4"	16	50	35
85	M 18x2,5	27	19	20	22	35	77	168	18	40	100	1/4"	18	60	45
100	M 20x2,5	30	20	23	24	44	81	192	20	40	116	1/4"	21	70	50



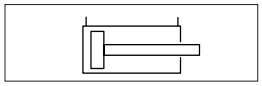


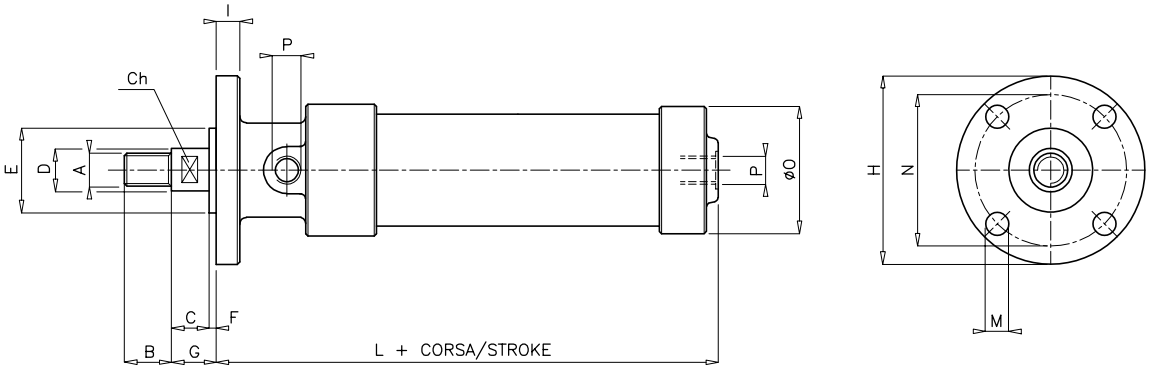
Solo a doppio effetto
Only double-acting

FISSAGGIO CERNIERA POSTERIORE serie ridotta codice. **301.04** Ø.corsa
REAR BRACKET FIXING *reduced series code.* ***301.04*** *Ø.stroke*

ALESAGGIO *BORE*	A	B	Ch	C	D	H	I	L	ØM	N	ØO	P	Q
20	M 6x1	9	6	8	8	10	22	72	5	8	30	1/8"	6
27	M 8x1,25	12	8	8	10	18	25	75	6	9	35	1/8"	7
35	M 10x1,5	15	10	11	12	22	32	84	8	12	45	1/8"	9
40	M 10x1,5	15	10	12	12	23	40	90	10	18	50	1/8"	10
50	M 12x1,75	18	12	14	14	27	50	101	12	25	63	1/8"	13
60	M 14x2	21	15	17	18	28	58	110	14	26	73	1/4"	15
70	M 16x2	24	17	16	20	35	71	122	16	35	84	1/4"	16
85	M 18x2,5	27	19	19	22	35	77	128	18	40	100	1/4"	18
100	M 20x2,5	30	20	20	24	44	81	142	20	40	116	1/4"	21

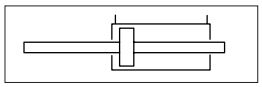
Cilindri con fissaggi integrati
Integrated fixing cylinders

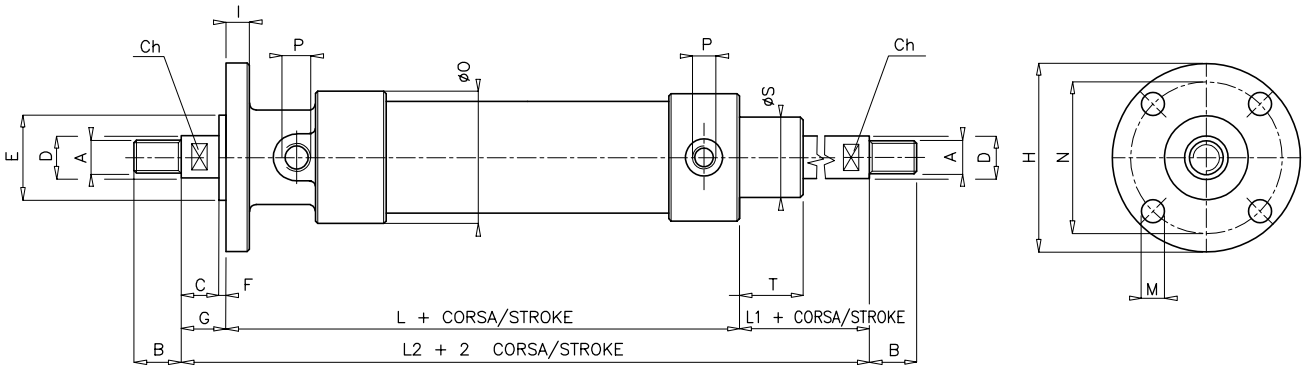




FISSAGGIO FLANGIA ANTERIORE codice. **302.00** Ø.corsa
FRONT FLANGE FIXING *code.* ***302.00*** *Ø.stroke*

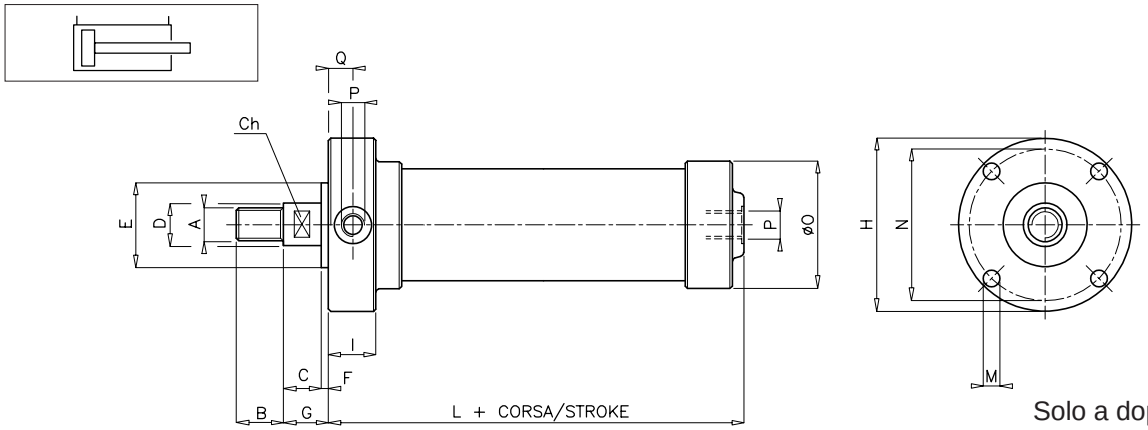
ALESAGGIO *BORE*	A	B	Ch	C	D	E	F	G	H	I	L	M	N	ØO	P
20	M 6x1	9	6	8	8	23	2	10	50	4	59	4,5	39	30	1/8"
27	M 8x1,25	12	8	10	10	30	2	12	58	5	66	4,5	48	35	1/8"
35	M 10x1,5	15	10	12	12	36	2	14	65	6	75	5,5	54	45	1/8"
40	M 10x1,5	15	10	12	12	40	3	15	70	7	86	6,5	57	50	1/8"
50	M 12x1,75	18	12	15	14	54	4	19	87	8	89	6,5	75	63	1/8"
60	M 14x2	21	15	17	18	60	4	21	100	8	94	6,5	82	73	1/4"
70	M 16x2	24	17	18	20	70	4	22	119	10	97	8,5	100	84	1/4"
85	M 18x2,5	27	19	20	22	80	4	24	140	11	115	10,5	120	100	1/4"
100	M 20x2,5	30	20	23	24	88	4	27	160	12	127	10,5	137	116	1/4"





FISSAGGIO FLANGIA ANTERIORE stelo passante codice. **302.10** Ø.corsa
FRONT FLANGE FIXING *double piston rod code.* ***302.10*** *Ø.stroke*

ALESAGGIO *BORE*	A	B	Ch	C	D	E	F	G	H	I	L	L1	L2	M	N	ØO	P	ØS	T
20	M 6x1	9	6	8	8	23	2	10	50	4	67	24	101	4,5	39	30	1/8"	24	16
27	M 8x1,25	12	8	10	10	30	2	12	58	5	82	30	124	4,5	48	35	1/8"	28	20
35	M 10x1,5	15	10	12	12	36	2	14	65	6	88	36	138	5,5	54	45	1/8"	32	24
40	M 10x1,5	15	10	12	12	40	3	15	70	7	97	44	156	6,5	57	50	1/8"	36	32
50	M 12x1,75	18	12	15	14	54	4	19	87	8	96	47	162	6,5	75	63	1/8"	40	32
60	M 14x2	21	15	17	18	60	4	21	100	8	106	49	176	6,5	82	73	1/4"	45	32
70	M 16x2	24	17	18	20	70	4	22	119	10	105	53	180	8,5	100	84	1/4"	50	35
85	M 18x2,5	27	19	20	22	80	4	24	140	11	121	65	210	10,5	120	100	1/4"	60	45
100	M 20x2,5	30	20	23	24	88	4	27	160	12	135	73	235	10,5	137	116	1/4"	70	50

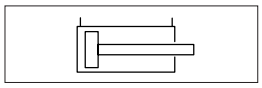


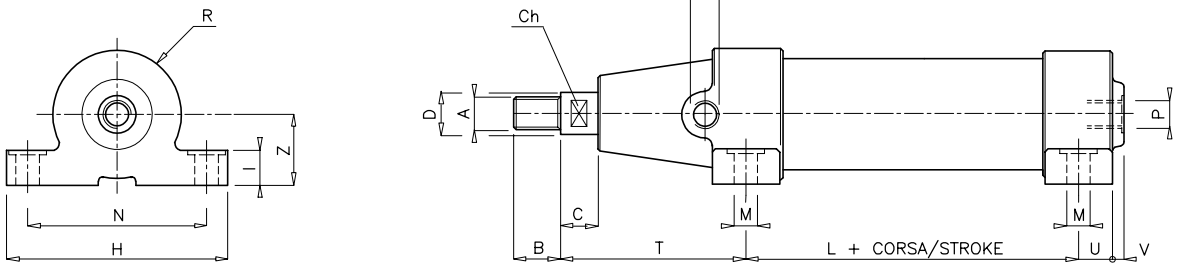
Solo a doppio effetto
Only double-acting

FISSAGGIO FLANGIA ANTERIORE serie ridotta codice. **302.04** Ø.corsa
FRONT FLANGE FIXING *reduced series code.* ***302.04*** *Ø.stroke*

ALESAGGIO *BORE*	A	B	Ch	C	D	E	F	G	H	I	L	M	N	ØO	P	Q
20	M 6x1	9	6	8	8	23	2	10	50	18	46	4,5	39	30	1/8"	9
27	M 8x1,25	12	8	8	10	30	2	10	60	19	48	4,5	48	35	1/8"	9,5
35	M 10x1,5	15	10	11	12	38	2	13	70	19	53	5,5	59	45	1/8"	9,5
40	M 10x1,5	15	10	12	12	40	3	15	75	21	54	5,5	62	50	1/8"	10,5
50	M 12x1,75	18	12	14	14	50	3	17	90	23	61	6,5	75	63	1/8"	11,5
60	M 14x2	21	15	17	18	62	3	20	100	26	65	8,5	86	73	1/4"	13
70	M 16x2	24	17	16	20	72	4	20	120	27	69	8,5	100	84	1/4"	13,5
85	M 18x2,5	27	19	19	22	80	4	23	140	28	76	10,5	120	100	1/4"	14
100	M 20x2,5	30	20	20	24	88	4	24	160	28	80	10,5	137	116	1/4"	14

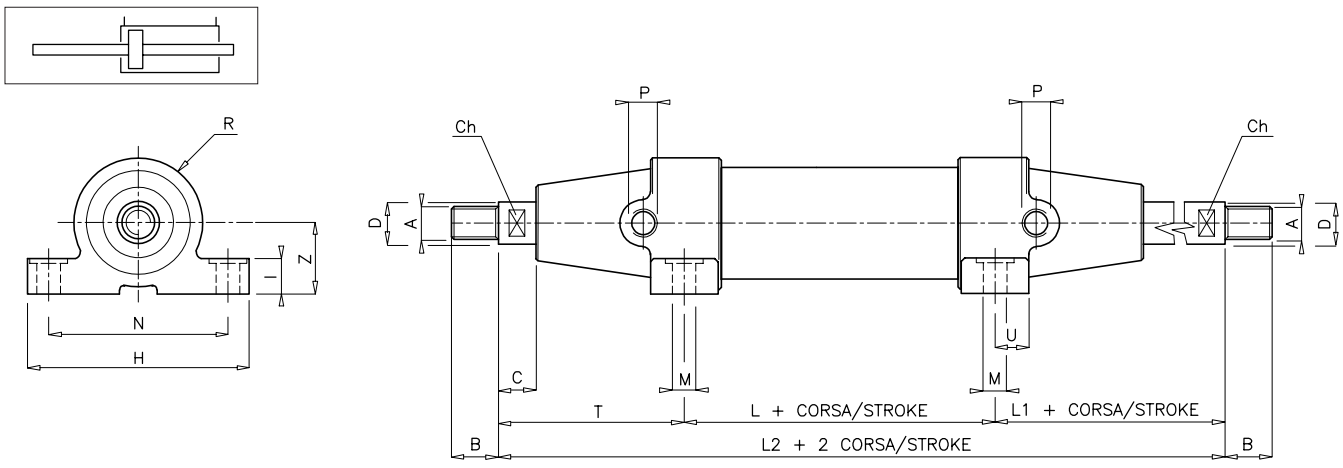
Cilindri con fissaggi integrati
Integrated fixing cylinders





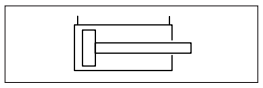
FISSAGGIO A PIEDINI codice. **303.00** Ø.corsa
FOOT FIXING *code.* ***303.00*** *Ø.stroke*

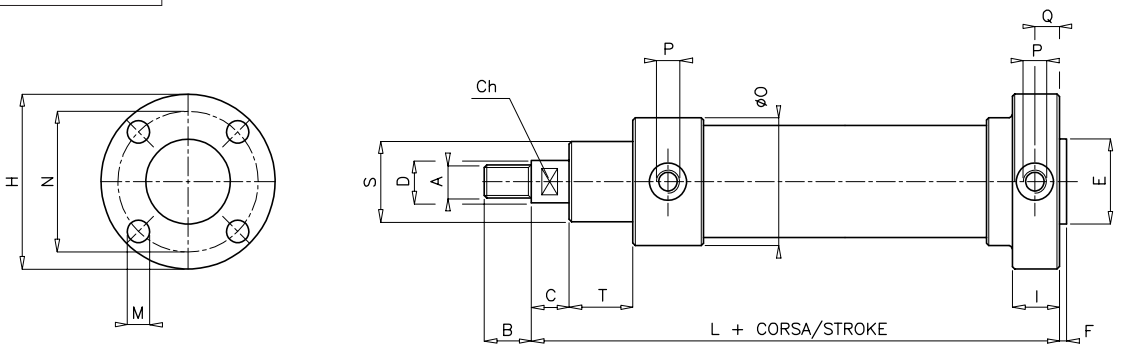
ALESAGGIO *BORE*	A	B	Ch	C	D	H	I	L	M	N	P	R	T	U	V	Z
27	M 8x1,25	12	8	10	10	55	10	19	4,5	45	1/8"	18	50	13	-	19
35	M 10x1,5	15	10	12	12	77	12	25	5,5	59	1/8"	23	54	9	3	24
40	M 10x1,5	15	10	12	12	86	13	25	5,5	65	1/8"	25	65,5	9,5	3	27
50	M 12x1,75	18	12	15	14	97	16	22	5,5	78	1/8"	32	70	11	5	31
60	M 14x2	21	15	17	18	110	17	26	6,5	90	1/4"	37	75	13	6	39
70	M 16x2	24	17	18	20	125	18	26	8,5	100	1/4"	42	77	13	6	44
85	M 18x2,5	27	19	20	22	147	20	36	8,5	120	1/4"	50	87	14	6	51
100	M 20x2,5	30	20	23	24	166	22	37	8,5	136	1/4"	58	99	14	6	59



FISSAGGIO A PIEDINI stelo passante codice. **303.10** Ø.corsa
FOOT FIXING *double piston rod code.* ***303.10*** *Ø.stroke*

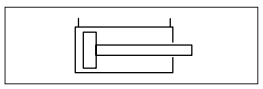
ALESAGGIO *BORE*	A	B	Ch	C	D	H	I	L	L1	L2	M	N	P	R	T	U	Z
27	M 8x1,25	12	8	10	10	55	10	24	50	124	4,5	45	1/8"	18	50	10	19
35	M 10x1,5	15	10	12	12	77	12	30	54	138	5,5	59	1/8"	23	54	9	24
40	M 10x1,5	15	10	12	12	86	13	25	65,5	156	5,5	65	1/8"	25	65,5	10	27
50	M 12x1,75	18	12	15	14	97	16	22	70	162	5,5	78	1/8"	32	70	11	31
60	M 14x2	21	15	17	18	110	17	26	75	176	6,5	90	1/4"	37	75	13	39
70	M 16x2	24	17	18	20	125	18	26	77	180	8,5	100	1/4"	42	77	13	44
85	M 18x2,5	27	19	20	22	147	20	36	87	210	8,5	120	1/4"	50	87	14	51
100	M 20x2,5	30	20	23	24	166	22	37	99	235	8,5	136	1/4"	58	99	14	59

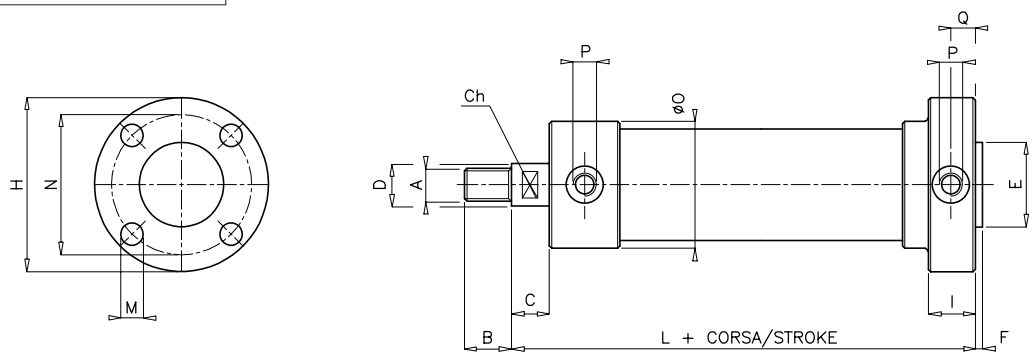




FISSAGGIO FLANGIA POSTERIORE codice. **304.00** Ø.corsa
REAR FLANGE FIXING *code.* ***304.00*** *Ø.stroke*

ALESAGGIO *BORE*	A	B	Ch	C	D	E	F	H	I	L	M	N	ØO	P	Q	S	T
20	M 6x1	9	6	8	8	23	2	50	18	78	4,5	39	30	1/8"	9	24	16
27	M 8x1,25	12	8	10	10	30	2	60	19	89	4,5	48	35	1/8"	9,5	28	20
35	M 10x1,5	15	10	12	12	38	2	70	19	97	5,5	59	45	1/8"	9,5	32	24
40	M 10x1,5	15	10	12	12	40	3	75	21	109	5,5	62	50	1/8"	10,5	36	32
50	M 12x1,75	18	12	15	14	50	3	90	23	115	6,5	75	63	1/8"	11,5	40	32
60	M 14x2	21	15	17	18	62	3	100	26	126	8,5	86	73	1/4"	13	45	32
70	M 16x2	24	17	18	20	72	4	120	27	130	8,5	100	84	1/4"	13,5	50	35
85	M 18x2,5	27	19	20	22	80	4	140	28	147	10,5	120	100	1/4"	14	60	45
100	M 20x2,5	30	20	23	24	88	4	160	28	161	10,5	137	116	1/4"	14	70	50





Solo a doppio effetto
Only double-acting

FISSAGGIO FLANGIA POSTERIORE serie ridotta codice. **304.04** Ø.corsa
REAR FLANGE FIXING *reduced series code.* ***304.04*** *Ø.stroke*

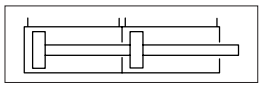
ALESAGGIO *BORE*	A	B	Ch	C	D	E	F	H	I	L	M	N	ØO	P	Q
20	M 6x1	9	6	8	8	23	2	50	18	65	4,5	39	30	1/8"	9
27	M 8x1,25	12	8	8	10	30	2	60	19	69	4,5	48	35	1/8"	9,5
35	M 10x1,5	15	10	11	12	38	2	70	19	74	5,5	59	45	1/8"	9,5
40	M 10x1,5	15	10	12	12	40	3	75	21	77	5,5	62	50	1/8"	10,5
50	M 12x1,75	18	12	14	14	50	3	90	23	85	6,5	75	63	1/8"	11,5
60	M 14x2	21	15	17	18	62	3	100	26	96	8,5	86	73	1/4"	13
70	M 16x2	24	17	16	20	72	4	120	27	100	8,5	100	84	1/4"	13,5
85	M 18x2,5	27	19	19	22	80	4	140	28	107	10,5	120	100	1/4"	14
100	M 20x2,5	30	20	20	24	88	4	160	28	111	10,5	137	116	1/4"	14

MOLTIPLICATORI DI FORZA

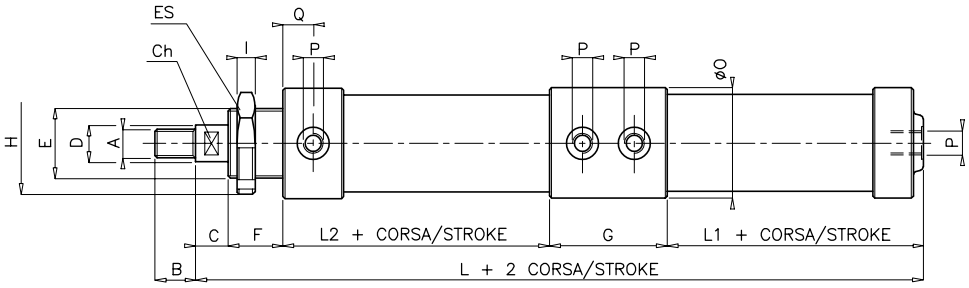
I cilindri tandem o moltiplicatori di forza a due o più camere di spinta trovano applicazione quando si rende necessario aumentare la forza di spinta senza potere aumentare l'alesaggio del cilindro.

FORCE MULTIPLIERS

Tandem cylinders or force multipliers with two or more thrust chambers are used when it is necessary to increase the force of the thrust without having to increase the bore of the cylinder.



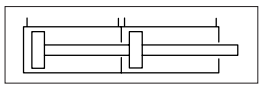
MOLTIPLICATORE DI FORZA
FORCE MULTIPLIER



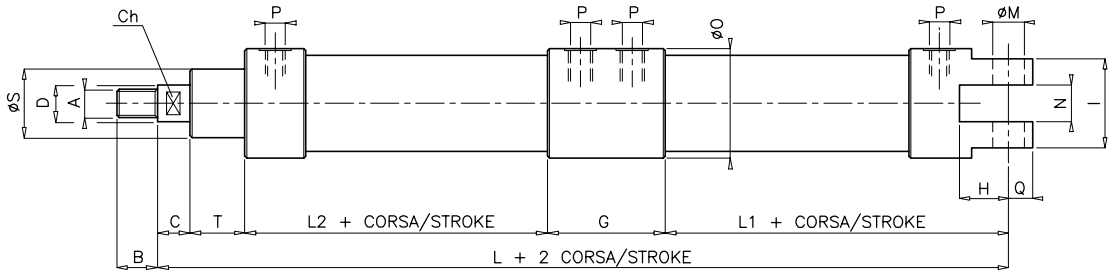
CILINDRO TENDEM* fissaggio vite anteriore codice. **300.20** Ø.corsa
TANDEM CYLINDER* *front screw fixing code.* ***300.20*** *Ø.stroke*

ALESAGGIO *BORE*	A	B	Ch	C	D	E	F	G	H	ES	I	L	L1	L2	ØO	P	Q
20	M 6x1	9	6	8	8	24x2	16	64	-	32	5	140	22	30	30	1/8"	9
27	M 8x1,25	12	8	10	10	28x2	20	70	-	36	6	156	20	36	35	1/8"	10
35	M 10x1,5	15	10	12	12	32x2	24	64	-	40	7	163	25	38	45	1/8"	10
40	M 10x1,5	15	10	12	12	36x2	32	64	-	46	8	169	25	36	50	1/8"	11
50	M 12x1,75	18	12	15	14	40x1,5	32	74	58	-	9	184	28	35	63	1/8"	11
60	M 14x2	21	15	17	18	45x1,5	32	82	65	-	10	199	28	40	73	1/4"	13
70	M 16x2	24	17	18	20	50x1,5	35	86	70	-	11	207	30	38	84	1/4"	12
85	M 18x2,5	27	19	20	22	60x2	45	91	80	-	11	234	36	42	100	1/4"	13
100	M 20x2,5	30	20	23	24	70x2	50	96	92	-	12	255	39	47	116	1/4"	14

*A richiesta ulteriori camere di spinta / *Further thrust chambers available on request*



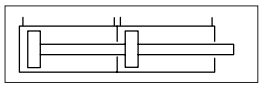
MOLTIPLICATORE DI FORZA
FORCE MULTIPLIER



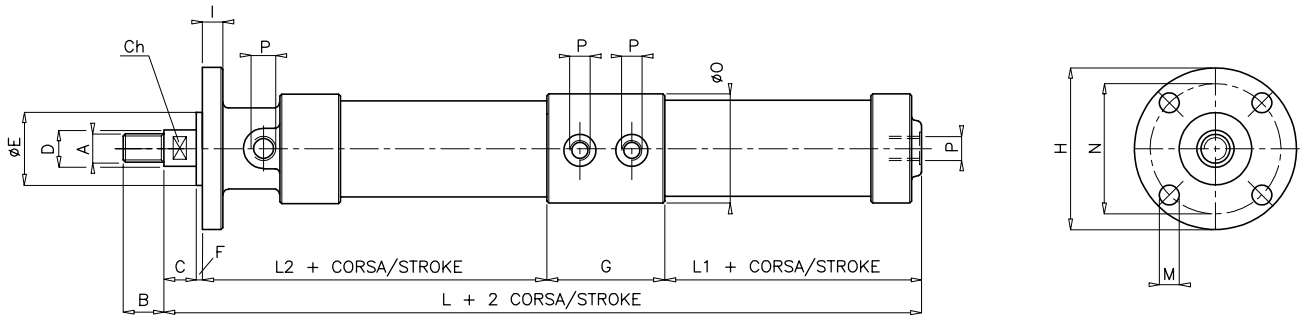
CILINDRO TANDEM* fissaggio cerniera posteriore codice. **301.20** Ø.corsa
TANDEM CYLINDER* *rear bracket fixing code.* ***301.20*** *Ø.stroke*

ALESAGGIO *BORE*	A	B	Ch	C	D	G	H	I	L	L1	L2	ØM	N	ØO	P	Q	ØS	T
20	M 6x1	9	6	8	8	64	10	22	156	38	30	5	8	30	1/8"	6	24	16
27	M 8x1,25	12	8	10	10	70	18	25	173	37	36	6	9	35	1/8"	7	28	20
35	M 10x1,5	15	10	12	12	64	22	32	181	43	38	8	12	45	1/8"	9	32	24
40	M 10x1,5	15	10	12	12	64	23	40	190	46	36	10	18	50	1/8"	10	36	32
50	M 12x1,75	18	12	15	14	74	27	50	207	51	35	12	25	63	1/8"	13	40	32
60	M 14x2	21	15	17	18	82	28	58	224	53	40	14	26	73	1/4"	15	45	32
70	M 16x2	24	17	18	20	86	35	71	240	63	38	16	35	84	1/4"	16	50	35
85	M 18x2,5	27	19	20	22	91	35	77	263	65	42	18	40	100	1/4"	18	60	45
100	M 20x2,5	30	20	23	24	96	44	81	293	77	47	20	40	116	1/4"	21	70	50

*A richiesta ulteriori camere di spinta / *Further thrust chambers available on request*



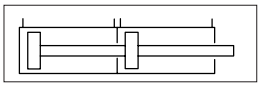
MOLTIPLICATORE DI FORZA
FORCE MULTIPLIER



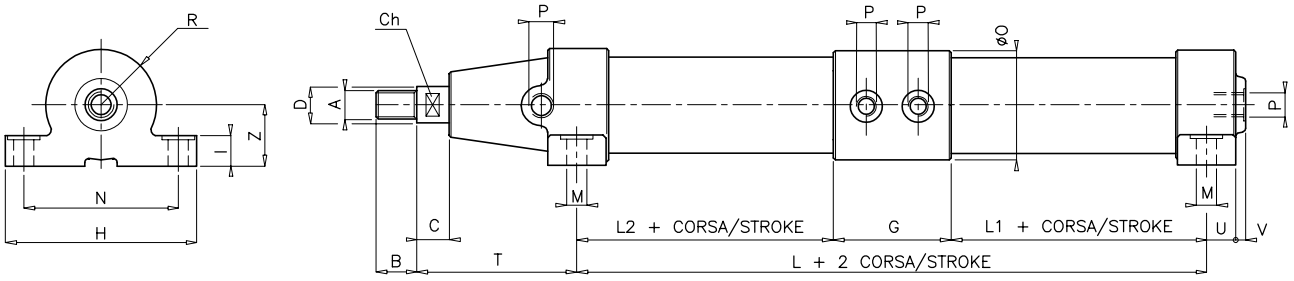
CILINDRO TANDEM* fissaggio flangia anteriore codice. **302.20** Ø.corsa
TANDEM CYLINDER* *front flange fixing code.* ***302.20*** *Ø.stroke*

ALESAGGIO *BORE*	A	B	Ch	C	D	E	F	G	H	I	L	L1	L2	M	N	ØO	P
20	M 6x1	9	6	8	8	23	2	64	50	4	140	22	44	4,5	39	30	1/8"
27	M 8x1,25	12	8	10	10	30	2	70	58	5	156	20	54	4,5	48	35	1/8"
35	M 10x1,5	15	10	12	12	36	2	64	65	6	163	25	60	5,5	54	45	1/8"
40	M 10x1,5	15	10	12	12	40	3	64	70	7	169	25	65	6,5	57	50	1/8"
50	M 12x1,75	18	12	15	14	54	4	74	87	8	184	28	63	6,5	75	63	1/8"
60	M 14x2	21	15	17	18	60	4	82	100	8	199	28	68	6,5	82	73	1/4"
70	M 16x2	24	17	18	20	70	4	86	119	10	207	30	69	8,5	100	84	1/4"
85	M 18x2,5	27	19	20	22	80	4	91	140	11	234	36	83	10,5	120	100	1/4"
100	M 20x2,5	30	20	23	24	88	4	96	160	12	255	39	93	10,5	137	116	1/4"

*A richiesta ulteriori camere di spinta / *Further thrust chambers available on request*



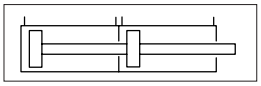
MOLTIPLICATORE DI FORZA
FORCE MULTIPLIER



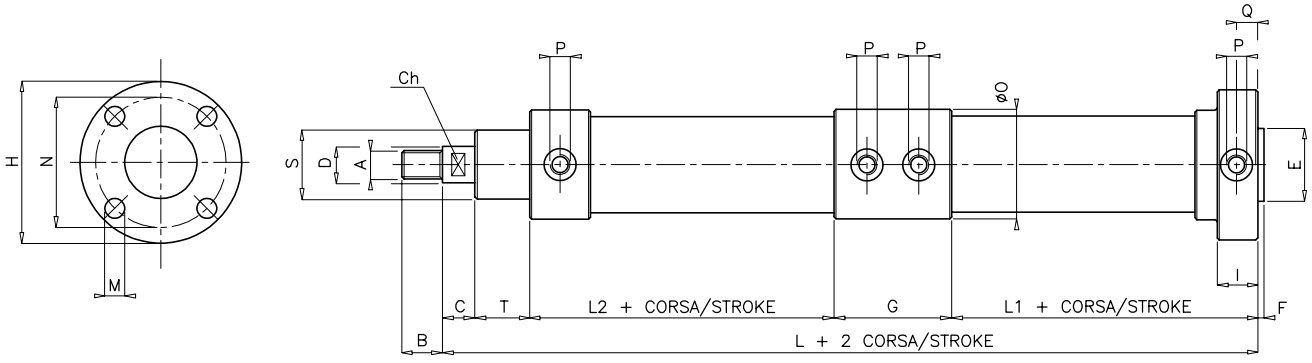
CILINDRO TANDEM* fissaggio a piedini codice. **303.20** Ø.corsa
TANDEM CYLINDER* *feet fixing* code. ***303.20*** *Ø.stroke*

ALESAGGIO *BORE*	A	B	Ch	C	D	G	H	I	L	L1	L2	M	N	ØO	P	R	T	U	V	Z
27	M 8x1,25	12	8	10	10	70	55	10	97	11	16	4,5	45	35	1/8"	18	50	13	-	19
35	M 10x1,5	15	10	12	12	64	77	12	99	15	20	5,5	59	45	1/8"	23	54	9	3	24
40	M 10x1,5	15	10	12	12	64	86	13	93	14	15	5,5	65	50	1/8"	25	65,5	9,5	3	27
50	M 12x1,75	18	12	15	14	74	97	16	98	12	12	5,5	78	63	1/8"	32	70	11	5	31
60	M 14x2	21	15	17	18	82	110	17	110	14	14	6,5	90	73	1/4"	37	75	13	6	39
70	M 16x2	24	17	18	20	86	125	18	114	14	14	8,5	100	84	1/4"	42	77	13	6	44
85	M 18x2,5	27	19	20	22	91	147	20	131	20	20	8,5	120	100	1/4"	50	87	14	6	51
100	M 20x2,5	30	20	23	24	96	166	22	138	21	21	8,5	136	116	1/4"	58	99	14	6	59

*A richiesta ulteriori camere di spinta / *Further thrust chambers available on request*



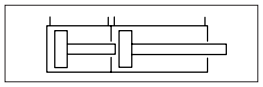
MOLTIPLICATORE DI FORZA
FORCE MULTIPLIER



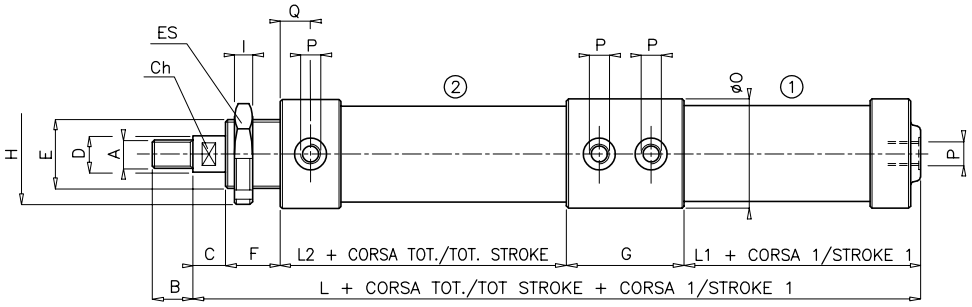
CILINDRO TANDEM* fissaggio flangia posteriore codice. **304.20** Ø.corsa
TANDEM CYLINDER* *rear flange fixing* code. ***304.20*** *Ø.stroke*

ALESAGGIO *BORE*	A	B	Ch	C	D	E	F	G	H	I	L	L1	L2	M	N	ØO	P	Q	S	T
20	M 6x1	9	6	8	8	23	2	64	50	18	149	31	30	4,5	39	30	1/8"	9	24	16
27	M 8x1,25	12	8	10	10	30	2	70	60	19	167	31	36	4,5	48	35	1/8"	9,5	28	20
35	M 10x1,5	15	10	12	12	38	2	64	70	19	171	33	38	5,5	59	45	1/8"	9,5	32	24
40	M 10x1,5	15	10	12	12	40	3	64	75	21	177	33	36	5,5	62	50	1/8"	10,5	36	32
50	M 12x1,75	18	12	15	14	50	3	74	90	23	191	35	35	6,5	75	63	1/8"	11,5	40	32
60	M 14x2	21	15	17	18	62	3	82	100	26	210	39	40	8,5	86	73	1/4"	13	45	32
70	M 16x2	24	17	18	20	72	4	86	120	27	218	41	38	8,5	100	84	1/4"	13,5	50	35
85	M 18x2,5	27	19	20	22	80	4	91	140	28	242	44	42	10,5	120	100	1/4"	14	60	45
100	M 20x2,5	30	20	23	24	88	4	96	160	28	262	46	47	10,5	137	116	1/4"	14	70	50

*A richiesta ulteriori camere di spinta / *Further thrust chambers available on request*



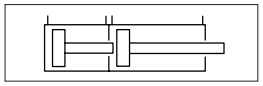
STAZIONI MULTIPLE
MULTIPLE STATION



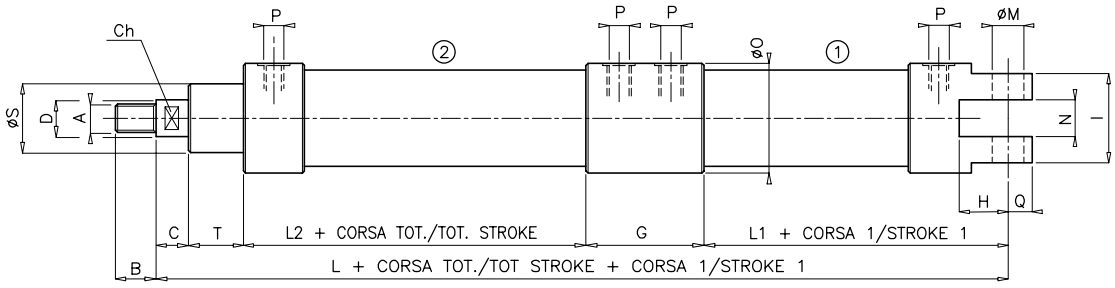
CILINDRO DOPPIA STAZIONE* fissaggio vite anteriore codice. **300.30** Ø.corsa totale**
DOUBLE STATION CYLINDER* *front screw fixing code.* ***300.30*** *Ø.total stroke***

ALESAGGIO *BORE*	A	B	Ch	C	D	E	F	G	H	ES	I	L	L1	L2	ØO	P	Q
20	M 6x1	9	6	8	8	24x2	16	64	-	32	5	145	22	35	30	1/8"	9
27	M 8x1,25	12	8	10	10	28x2	20	70	-	36	6	156	20	36	35	1/8"	10
35	M 10x1,5	15	10	12	12	32x2	24	64	-	40	7	163	25	38	45	1/8"	10
40	M 10x1,5	15	10	12	12	36x2	32	64	-	46	8	174	25	41	50	1/8"	11
50	M 12x1,75	18	12	15	14	40x1,5	32	74	58	-	9	189	28	40	63	1/8"	11
60	M 14x2	21	15	17	18	45x1,5	32	82	65	-	10	204	28	45	73	1/4"	13
70	M 16x2	24	17	18	20	50x1,5	35	86	70	-	11	212	30	43	84	1/4"	12
85	M 18x2,5	27	19	20	22	60x2	45	91	80	-	11	239	36	47	100	1/4"	13
100	M 20x2,5	30	20	23	24	70x2	50	96	92	-	12	260	39	52	116	1/4"	14

* A richiesta ulteriori stazioni / *Further stations on request*
** In fase di ordinazione indicare anche la corsa della 1ª stazione / *When ordering also indicate the 1st station stroke*



STAZIONI MULTIPLE
MULTIPLE STATION

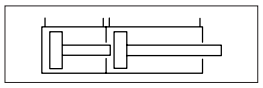


CILINDRO DOPPIA STAZIONE* fissaggio cerniera posteriore codice. **301.30** Ø.corsa totale**
DOUBLE STATION CYLINDER* *rear bracket fixing code.* ***301.30*** *Ø.total stroke***

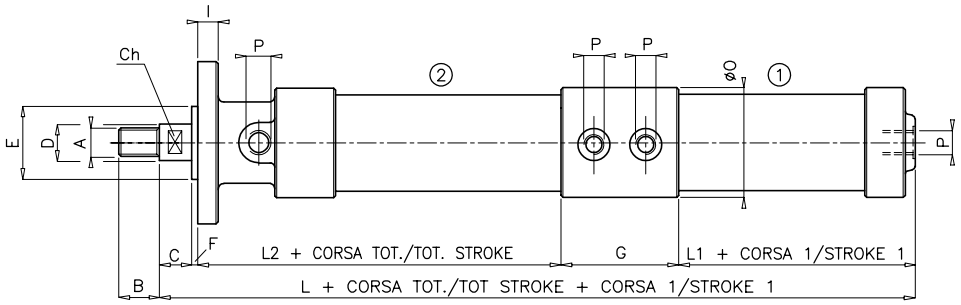
ALESAGGIO *BORE*	A	B	Ch	C	D	G	H	I	L	L1	L2	ØM	N	ØO	P	Q	ØS	T
20	M 6x1	9	6	8	8	64	10	22	161	38	35	5	8	30	1/8"	6	24	16
27	M 8x1,25	12	8	10	10	70	18	25	173	37	36	6	9	35	1/8"	7	28	20
35	M 10x1,5	15	10	12	12	64	22	32	181	43	38	8	12	45	1/8"	9	32	24
40	M 10x1,5	15	10	12	12	64	23	40	195	46	41	10	18	50	1/8"	10	36	32
50	M 12x1,75	18	12	15	14	74	27	50	211	51	40	12	25	63	1/8"	13	40	32
60	M 14x2	21	15	17	18	82	28	58	229	53	45	14	26	73	1/4"	15	45	32
70	M 16x2	24	17	18	20	86	35	71	245	63	43	16	35	84	1/4"	16	50	35
85	M 18x2,5	27	19	20	22	91	35	77	268	65	47	18	40	100	1/4"	18	60	45
100	M 20x2,5	30	20	23	24	96	44	81	298	77	52	20	40	116	1/4"	21	70	50

* A richiesta ulteriori stazioni / *Further stations on request*
** In fase di ordinazione indicare anche la corsa della 1ª stazione / *When ordering also indicate the 1st station stroke*

Cilindri con fissaggi integrati
Integrated fixing cylinders



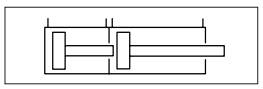
STAZIONI MULTIPLE
MULTIPLE STATIONS



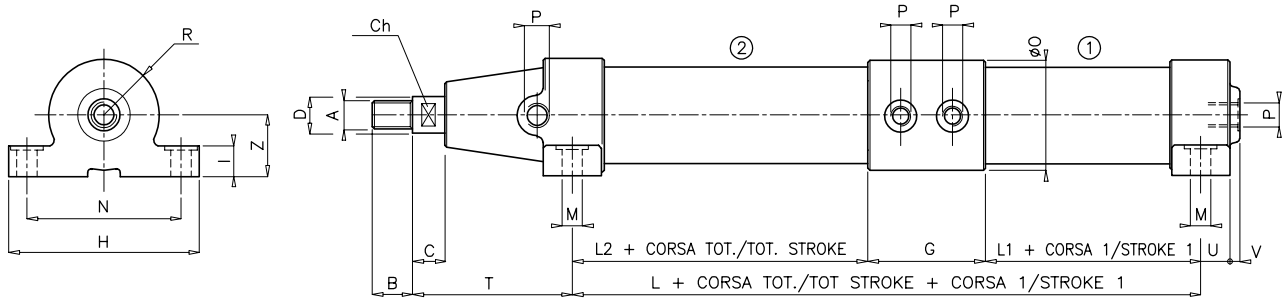
CILINDRO DOPPIA STAZIONE* fissaggio flangia anteriore codice. **302.30** Ø.corsa totale**
DOUBLE STATION CYLINDER* *front flange fixing code.* ***302.30*** *Ø.total stroke***

ALESAGGIO *BORE*	A	B	Ch	C	D	E	F	G	H	I	L	L1	L2	M	N	ØO	P
20	M 6x1	9	6	8	8	23	2	64	50	4	145	22	49	4,5	39	30	1/8"
27	M 8x1,25	12	8	10	10	30	2	70	58	5	156	20	54	4,5	48	35	1/8"
35	M 10x1,5	15	10	12	12	36	2	64	65	6	163	25	60	5,5	54	45	1/8"
40	M 10x1,5	15	10	12	12	40	3	64	70	7	174	25	70	6,5	57	50	1/8"
50	M 12x1,75	18	12	15	14	54	4	74	87	8	189	28	68	6,5	75	63	1/8"
60	M 14x2	21	15	17	18	60	4	82	100	8	204	28	73	6,5	82	73	1/4"
70	M 16x2	24	17	18	20	70	4	86	119	10	212	30	74	8,5	100	84	1/4"
85	M 18x2,5	27	19	20	22	80	4	91	140	11	239	36	88	10,5	120	100	1/4"
100	M 20x2,5	30	20	23	24	88	4	96	160	12	260	39	98	10,5	137	116	1/4"

* A richiesta ulteriori stazioni / *Further stations on request*
** In fase di ordinazione indicare anche la corsa della 1ª stazione / *When ordering also indicate the 1st station stroke*



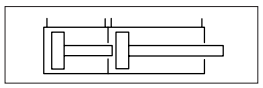
STAZIONI MULTIPLE
MULTIPLE STATIONS



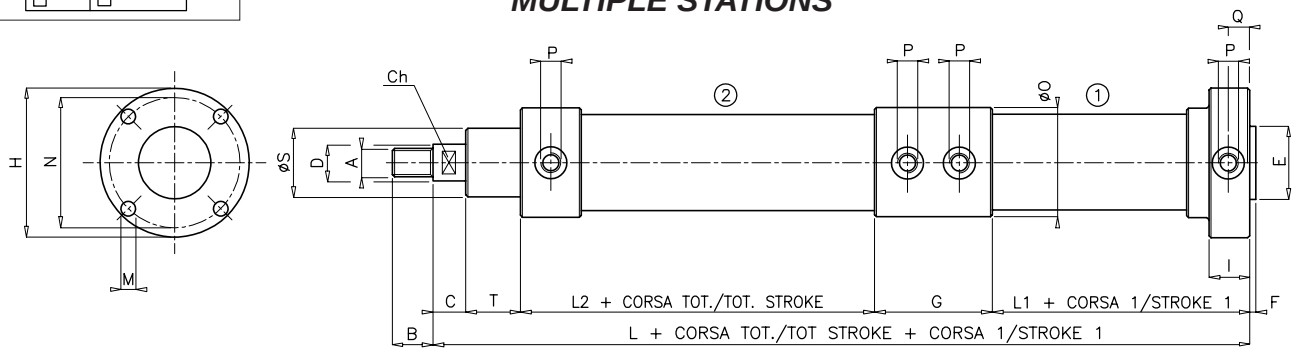
CILINDRO DOPPIA STAZIONE* fissaggio a piedini codice. **303.30** Ø.corsa totale**
DOUBLE STATION CYLINDER* *foot fixing code.* ***303.30*** *Ø.total stroke***

ALESAGGIO *BORE*	A	B	Ch	C	D	G	H	I	L	L1	L2	M	N	ØO	P	R	T	U	V	Z
27	M 8x1,25	12	8	10	10	70	55	10	97	11	16	4,5	45	35	1/8"	18	50	13	-	19
35	M 10x1,5	15	10	12	12	64	77	12	99	15	20	5,5	59	45	1/8"	23	54	9	3	24
40	M 10x1,5	15	10	12	12	64	86	13	98	14	20	5,5	65	50	1/8"	25	65,5	9,5	3	27
50	M 12x1,75	18	12	15	15	74	97	16	103	12	17	5,5	78	63	1/8"	32	70	11	5	31
60	M 14x2	21	15	17	18	82	110	17	115	14	19	6,5	90	73	1/4"	37	75	13	6	39
70	M 16x2	24	17	18	20	86	125	18	119	14	19	8,5	100	84	1/4"	42	77	13	6	44
85	M 18x2,5	27	19	20	22	91	147	20	136	20	25	8,5	120	100	1/4"	50	87	14	6	51
100	M 20x2,5	30	20	23	24	96	166	22	143	21	26	8,5	136	116	1/4"	58	99	14	6	59

* A richiesta ulteriori stazioni / *Further stations on request*
** In fase di ordinazione indicare anche la corsa della 1ª stazione / *When ordering also indicate the 1st station stroke*



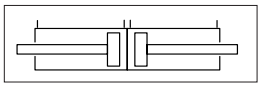
STAZIONI MULTIPLE
MULTIPLE STATIONS



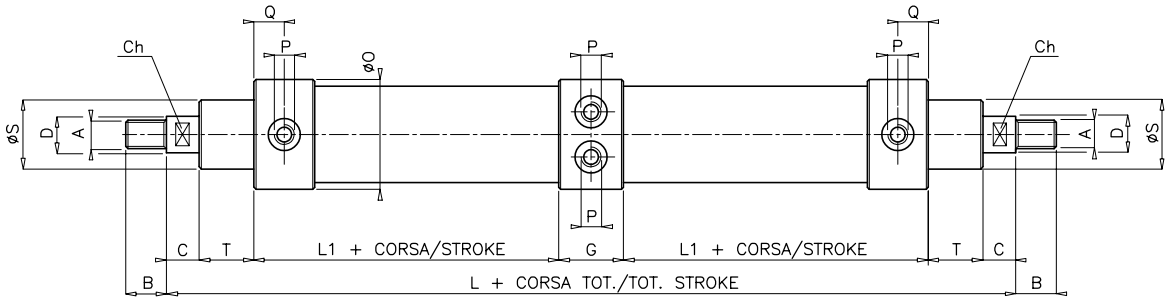
CILINDRO DOPPIA STAZIONE* fissaggio flangia posteriore codice. **304.30** Ø.corsa totale**
DOUBLE STATION CYLINDER* *rear flange fixing code.* ***304.30*** *Ø.total stroke***

ALESAGGIO *BORE*	A	B	Ch	C	D	E	F	G	H	I	L	L1	L2	M	N	ØO	P	Q	ØS	T
20	M 6x1	9	6	8	8	23	2	64	50	18	154	31	35	4,5	39	30	1/8"	9	24	16
27	M 8x1,25	12	8	10	10	30	2	70	60	19	167	31	36	4,5	48	35	1/8"	9,5	28	20
35	M 10x1,5	15	10	12	12	38	2	64	70	19	171	33	38	5,5	59	45	1/8"	9,5	32	24
40	M 10x1,5	15	10	12	12	40	3	64	75	21	182	33	41	5,5	62	50	1/8"	10,5	36	32
50	M 12x1,75	18	12	15	14	50	3	74	90	23	196	35	40	6,5	75	63	1/8"	11,5	40	32
60	M 14x2	21	15	17	18	62	3	82	100	26	215	39	45	8,5	86	73	1/4"	13	45	32
70	M 16x2	24	17	18	20	72	4	86	120	27	223	41	43	8,5	100	84	1/4"	13,5	50	35
85	M 18x2,5	27	19	20	22	80	4	91	140	28	247	44	47	10,5	120	100	1/4"	14	60	45
100	M 20x2,5	30	20	23	24	88	4	96	160	28	267	46	52	10,5	137	116	1/4"	14	70	50

* A richiesta ulteriori stazioni / *Further stations on request*
** In fase di ordinazione indicare anche la corsa della 1ª stazione / *When ordering also indicate the 1st station stroke*



DOPPIO
DOUBLE

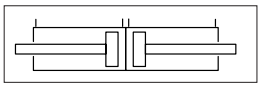


CILINDRO DOPPIO fissaggio su stelo codice. **305.40** Ø.corsa totale*
DOUBLE CYLINDER *fixing on piston rod code.* ***305.40*** *Ø.total stroke**

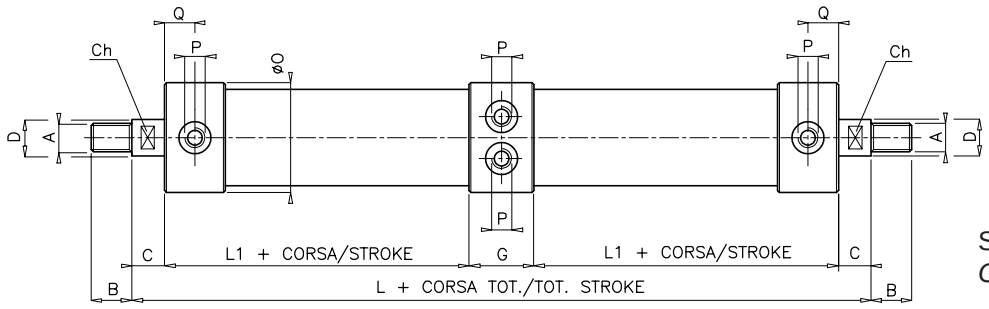
ALESAGGIO *BORE*	A	B	Ch	C	D	G	L	L1	ØO	P	Q	ØS	T
20	M 6x1	9	6	8	8	29	137	30	30	1/8"	9	24	16
27	M 8x1,25	12	8	10	10	35	157	31	35	1/8"	10	28	20
35	M 10x1,5	15	10	12	12	36	174	33	45	1/8"	10	32	24
40	M 10x1,5	15	10	12	12	36	196	36	50	1/8"	11	36	32
50	M 12x1,75	18	12	15	14	43	207	35	63	1/8"	11	40	32
60	M 14x2	21	15	17	18	46	224	40	73	1/4"	13	45	32
70	M 16x2	24	17	18	20	50	232	38	84	1/4"	12	50	35
85	M 18x2,5	27	19	20	22	52	266	42	100	1/4"	13	60	45
100	M 20x2,5	30	20	23	24	52	292	47	116	1/4"	14	70	50

* In fase di ordinazione indicare sempre le due corse separatamente / *When ordering always indicate the two strokes separately*

Cilindri con fissaggi integrati
Integrated fixing cylinders



DOPPIO RIDOTTO
DOUBLE REDUCED

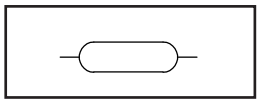


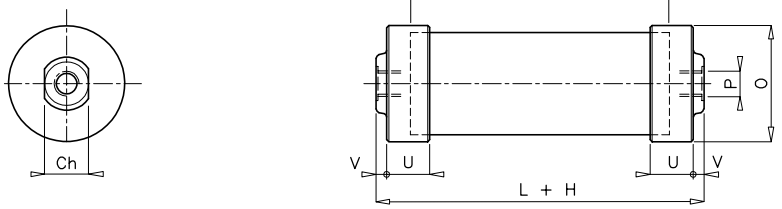
Solo a doppio effetto
Only double-acting

CILINDRO DOPPIO serie ridotta fissaggio su stelo codice. **305.44** Ø.corsa totale*
DOUBLE CYLINDER *reduced series fixing on piston rod code.* ***305.44*** *Ø.total stroke**

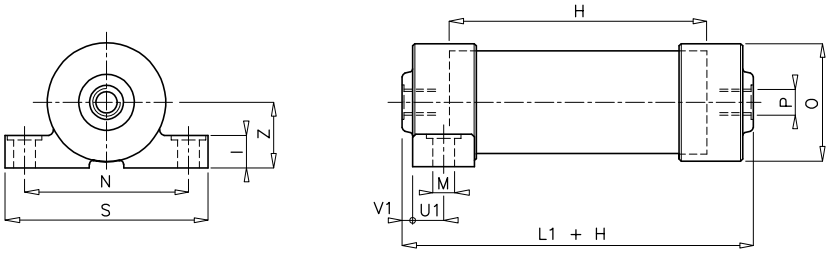
ALESAGGIO *BORE*	A	B	Ch	C	D	G	L	L1	ØO	P	Q
20	M 6x1	9	6	8	8	29	111	33	30	1/8"	12
27	M 8x1,25	12	8	8	10	35	117	33	35	1/8"	13
35	M 10x1,5	15	10	11	12	36	128	35	45	1/8"	12
40	M 10x1,5	15	10	12	12	36	132	36	50	1/8"	11
50	M 12x1,75	18	12	14	14	43	147	38	63	1/8"	13,5
60	M 14x2	21	15	17	18	46	164	42	73	1/4"	15
70	M 16x2	24	17	16	20	50	172	45	84	1/4"	18
85	M 18x2,5	27	19	19	22	52	188	49	100	1/4"	20
100	M 20x2,5	30	20	20	24	52	192	50	116	1/4"	19

* In fase di ordinazione indicare sempre le due corse separatamente / *When ordering always indicate the two strokes separately*



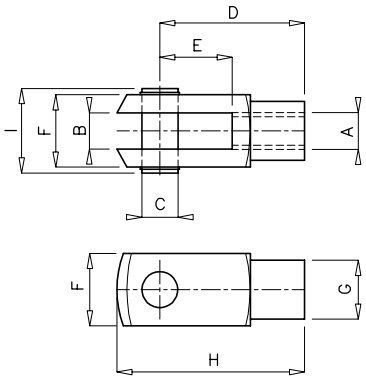


CAPACITA' A FONDELLI codice. **307.10** Ø .H
CAP CAPACITY *code.* ***307.10*** *Ø .H*

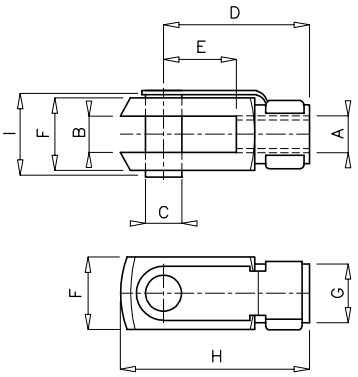


CAPACITA' A PIEDINO codice. **307.20** Ø .H
FOOT CAPACITY *code.* ***307.20*** *Ø .H*

ALESAGGIO *BORE*	Ch	I	L	L1	M	N	O	P	S	U	U1	V	V1	Z	H min.	CAPACITA' l x cm di H *CAPACITY l x cm of H*
20	15	-	15	-	-	-	30	1/8"	-	10,5	-	4	-	-	20	0,0031
27	17	10	14	18	4,5	45	35	1/8"	55	13	13	4	-	19	25	0,0057
35	19	12	20	22	5,5	59	45	1/8"	77	15	9	5	3	24	25	0,0096
40	22	13	22	24	5,5	65	50	1/8"	86	16	9,5	5	3	27	25	0,0126
50	30	16	26	26	5,5	78	63	1/8"	97	20	11	6	5	31	30	0,0196
60	30	17	24	29	6,5	90	73	1/4"	110	21	13	5	6	39	30	0,0283
70	30	18	26	29	8,5	100	84	1/4"	125	22	13	6	6	44	35	0,0385
85	40	20	34	38	8,5	120	100	1/4"	147	24	14	8	6	51	35	0,0567
100	45	22	38	40	8,5	136	116	1/4"	166	26	14	8	6	59	35	0,0785

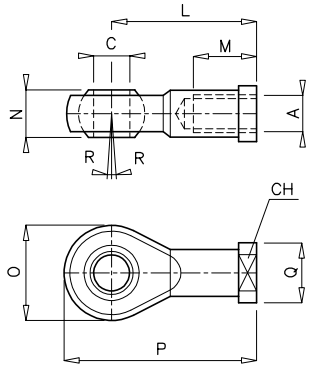


FORCELLA CON PERNO codice. **309.01** Ø .cilindro
FORK WITH PIN *code.* ***309.01*** ***Ø .cylinder***

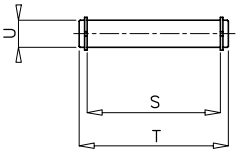


ESCLUSI ALESAGGI 60 E 85
EXCLUDING BORES 60 AND 85

FORCELLA CON CLIPS codice. **309.02** Ø .cilindro
FORK WITH CLIPS *code.* ***309.02*** ***Ø .cylinder***



SNODO SFERICO codice. **309.03** Ø .cilindro
BALL JOINT *code.* ***309.03*** ***Ø .cylinder***



PERNO CERNIERA codice. **309.04** Ø .cilindro
BRACKET PIN *code.* ***309.04*** ***Ø .cylinder***

RICAMBI
SPARES

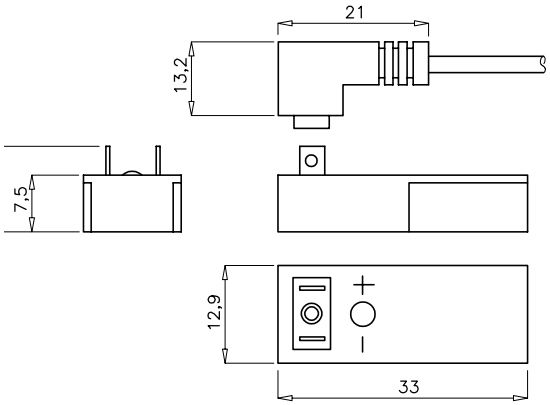
Per tutte le serie di cilindri sono previsti **KIT DI GUARNIZIONI DI RICAMBIO** in gomma **NBR** e in **VITON** per alte temperature.
For all cylinder series are provided ***SPARE SEAL KITS****.* ***NBR*** *rubber or* ***VITON*** *for high temperatures.*

ALESAGGIO *BORE*	A	B	C	CH	D	E	F	G	H	I	L	M	N	O	P	Q	R	S	T	U
20	M 6x1	6	6	11	24	12	12	10	31	19	30	12	9	20	40	13	13°	22,5	29	5
27	M 8x1,25	8	8	14	32	16	16	14	42	23	36	16	12	24	48	16	14°	25,5	32	6
35	M 10x1,5	10	10	17	40	20	20	18	52	28	43	20	14	29	57,5	19	13°	32,5	39	8
40	M 10x1,5	10	10	17	40	20	20	18	52	28	43	20	14	29	57,5	19	13°	40,5	47	10
50	M 12x1,75	12	12	19	48	24	24	20	61	31	50	22	16	34	67	22	13°	50,5	57	12
60	M 14x2	14	14	22	56	27	27	24	72	35	57	25	19	38	76	25	16°	58,5	66	14
70	M 16x2	16	16	22	64	32	32	26	82	40	64	28	21	42	85	27	15°	71,5	79	16
85	M 18x2,5	18	18	27	72	36	36	30	94	46	71	32	23	46	94	31	15°	78,5	88	18
100	M 20x2,5	20	20	32	80	40	40	34	105	51	77	33	25	50	102	34	14°	82	91	20

SERIE 390

diottalevi

Interruttore magnetico
Magnetic switch

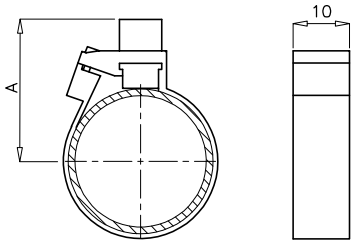


DATI TECNICI / *TECNICAL DATA*

- tipo / *type* ..... sensore reed / *switch reed*
- contatto / *contact* ..... N.A. / *N.O*
- fili / *wires* 2
- campo di tensione (AC / DC) / *range voltage (AC / DC)* ..... 3V - 250V
- corrente max / *max current* 500mA
- potenza max / *max power* 50W
- grado di protezione (IEC 60529) / *safety device (IEC 60529)* IP65
- protezione inversione polarità / *polarity reversal protection* ..... SI / YES
- temperatura di esercizio / *operation temperature* ..... -20°C / +70°C
- commutazione / *switching time* ..... ON 0,5mS
- vita elettrica / *electric life* ..... 10^7 cicli / *10^7 cycles*
- lunghezza cavo / *cable lenght* 3000mm

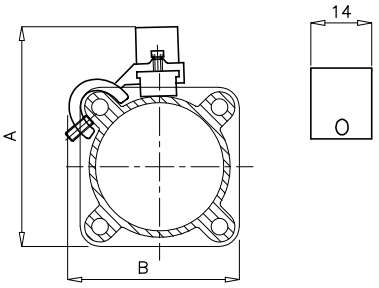
390.00.Ø interruttore magnetico completo di fascetta per microcilindro ISO 6432
390.00.Ø *magnetic switch with band for microcylinder ISO 6432*

ALESAGGIO *BORE*	A
8	24
10	25
12	26
16	28
20	30
25	33



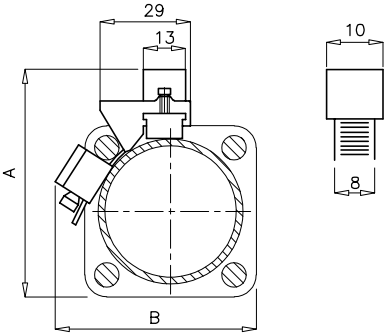
390.10.Ø interruttore magnetico completo di staffa per cilindro ISO 15552 con profilo "Mickey-mouse"
390.10.Ø *magnetic switch with stirrup for cylinder ISO 15552 with "Mickey-mouse" profile*

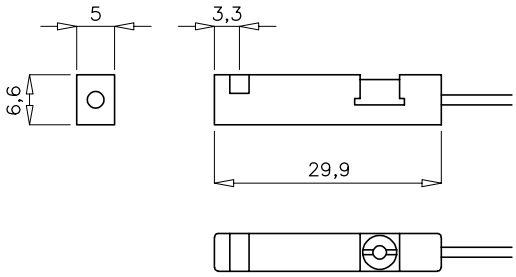
ALESAGGIO *BORE*	A	B
32	67	54
40	76	61
50	84	72
63	98	82
80	118	103
100	136	122
125	156	145

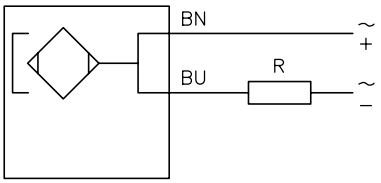


390.20.032 interruttore magnetico completo di staffa per cilindro con tiranti
390.20.032 *magnetic switch with stirrup for cylinder with tie rods*

ALESAGGIO *BORE*	A	B
32	65	56
40	74	63
50	81	73
63	94	83
80	110	99
100	132	115
125	155	140
160	180	180
200	220	220



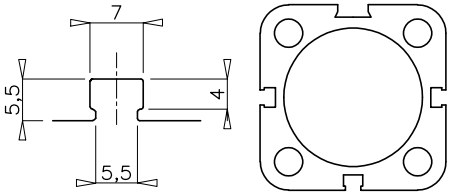




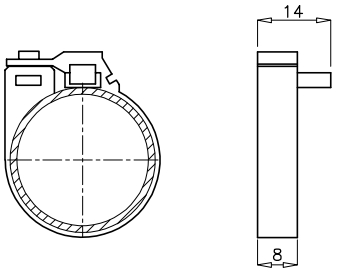
DATI TECNICI / *TECNICAL DATA*

- tipo / *type* ..... sensore reed / *switch reed*
- contatto / *contact* ..... N.A. / *N.O*
- fili / *wires* 2
- campo di tensione (AC / DC) / *range voltage (AC / DC)* ..... 3V - 130V
- corrente max / *max current* 50mA
- potenza max / *max power* 10W
- grado di protezione (IEC 60529) / *safety device (IEC 60529)* IP68
- protezione inversione polarità / *polarity reversal protection* ..... SI / YES
- temperatura di esercizio / *operation temperature* ..... -20°C / +70°C
- commutazione / *switching time* ..... ON 0,5mS OFF 0,1mS
- vita elettrica / *electric life* ..... 10^6 cicli / *10^6 cycles*
- lunghezza cavo / *cable lenght* 3000mm

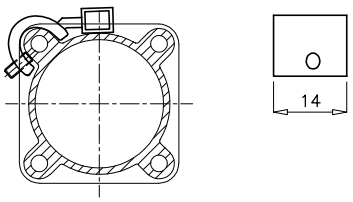
391.00.032 interruttore magnetico per cilindro ISO 15552 con profilo quadro e cilindro compatto
391.00.032 *magnetic switch for cylinder ISO 15552 with square profile and for compact cylinder*



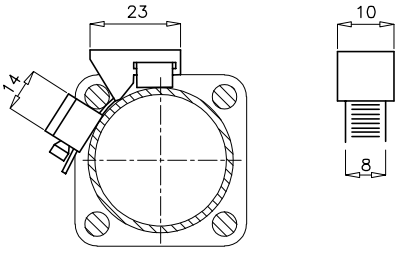
391.10.Ø interruttore magnetico completo di fascetta per microcilindro ISO 6432
391.10.Ø *magnetic switch with band for microcylinder ISO 6432*



391.20.Ø interruttore magnetico completo di staffa per cilindro ISO 15552 con profilo "Mickey-mouse"
391.20.Ø *magnetic switch with stirrup for cylinder ISO 15552 with "Mickey-mouse" profile*

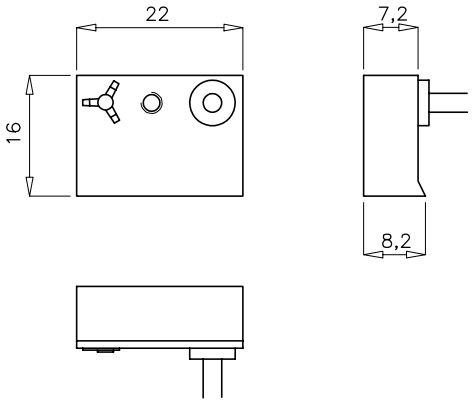


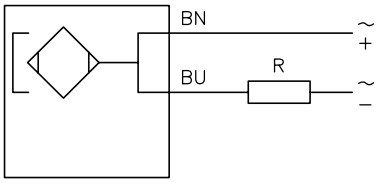
391.30.032 interruttore magnetico completo di staffa per cilindro con tiranti
391.30.032 *magnetic switch with stirrup for cylinder with tie rods*



SERIE 392

Interruttore magnetico
Magnetic switch



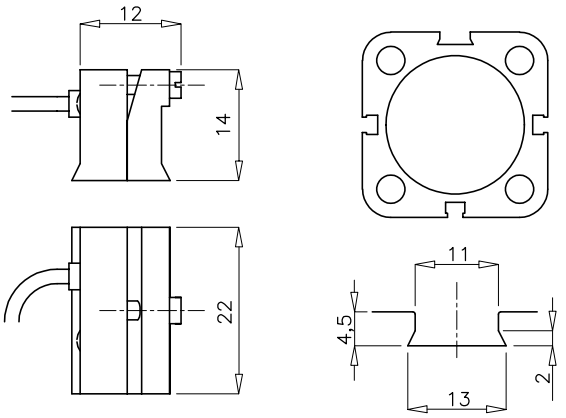


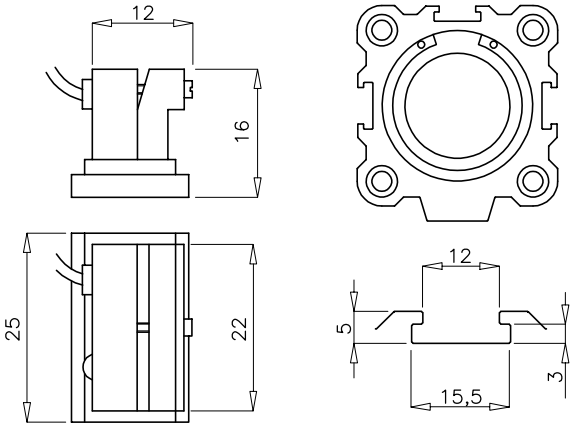
DATI TECNICI / *TECNICAL DATA*

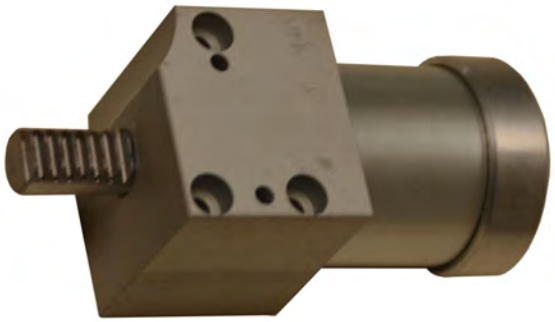
- tipo / *type* ..... sensore reed / *switch reed*
- contatto / *contact* ..... N.A. / *N.O*
- fili / *wires* 2
- campo di tensione (AC / DC) / *range voltage (AC / DC)* ..... 3V - 130V
- corrente max / *max current* 300mA
- potenza max / *max power* 10W
- grado di protezione (IEC 60529) / *safety device (IEC 60529)* IP67
- protezione inversione polarità / *polarity reversal protection* ..... SI / YES
- temperatura di esercizio / *operation temperature* ..... -20°C / +70°C
- commutazione / *switching time* ..... ON 0,5mS OFF 0,1mS
- vita elettrica / *electric life* ..... 10^6 cicli / *10^6 cycles*
- lunghezza cavo / *cable lenght* 3000mm

392.00.032 interruttore magnetico per cilindro corsa breve (serie 360), per cilindro compatto (serie 380) e per cilindro ISO 15552 (serie 320) con profilo quadro

392.00.032 *magnetic switch for short stroke cylinder (360 series), for compact cylinder (380 series) and for cylinder ISO 15552 (320 series) with square profile*








Note
notes

Note
notes

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