

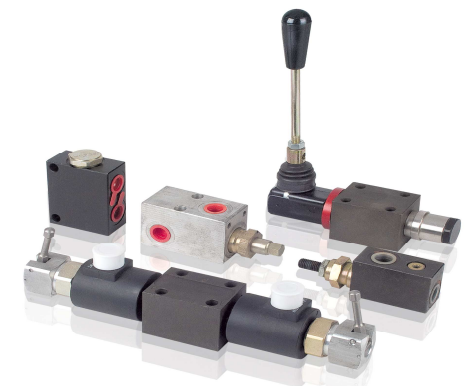
# COMPLETE CATALOGUE

## OLEODINAMICA O.R.T.A. S. R.L



O.R.T.A. srl - Via Giacosa, 33  
25135 S. Eufemia (BS) - Italy

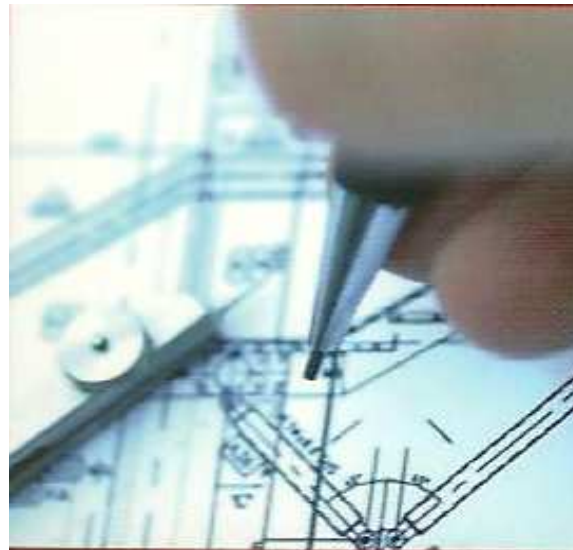
### ENGLISH



**O.R.T.A. S.r.l.** is an Italian company in Brescia and we are manufacturer of hydraulic control valves.  
The hydraulic activities started in 1954 with “ Oleodinamica Tagliapini “.

Our standard production is composed from :

- monoblock valves from 25 to 120 lit/min from 1 to 6 spools
  - modular valves from 15 to 120 lit/min from 1 to 12 spools
    - solenoid diverter valves
    - manual diverters
    - manifold with cartridge
  - cetop3, cetop5 and other solenoid valves for power packs
  - joystick with cable
  - radio remote control proportional for our electro - hydraulic proportional valves.
- We can have a competitive price with high-quality thanks our OEM products



**O.R.T.A. srl**  
**Via G.Giacosa 33 -**  
**25135 S.Eufemia (Bs)**  
**Italy**

**Tel. +39 030 363627 Fax +39 030 362761**

**[www.orta.it](http://www.orta.it) mail to: [antonio.tagliapini@orta.it](mailto:antonio.tagliapini@orta.it) [filippo.tagliapini@orta.it](mailto:filippo.tagliapini@orta.it)**





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<b>01</b>	<b>MONOBLOCK VALVES MB/25 MAX 45 LIT/MIN 350 BAR FROM 1 TO 6 SPOOLS</b>	<b>MB/25</b>
<b>02</b>	<b>MONOBLOCK VALVES MB/31 MAX 60 LIT/MIN 350 BAR ONLY 1 SPOOLS</b>	<b>MB/31</b>
<b>03</b>	<b>MONOBLOCK VALVES MB/35 MAX 60 LIT/MIN 350 BAR FROM 1 TO 4 SPOOLS</b>	<b>MB/35</b>
<b>04</b>	<b>MONOBLOCK VALVES MB/60 MAX 80 LIT/MIN 350 BAR FROM 1 TO 3 SPOOLS</b>	<b>MB/60</b>
<b>05</b>	<b>MODULAR VALVES LD/08 MAX 50 LIT/MIN 350 BAR FROM 1 TO 12 SPOOLS</b>	<b>LD/08</b>
<b>06</b>	<b>MODULAR VALVES LDB/12 MAX 80 LIT/MIN 350 BAR FROM 1 TO 12 SPOOLS</b>	<b>LDB/12</b>
<b>07</b>	<b>MODULAR VALVES LDA/16 MAX 120 LIT/MIN 350 BAR FROM 1 TO 12 SPOOLS</b>	<b>LDA/16</b>
<b>08</b>	<b>SOLENOID VALVES LDE/06 MODULAR MAX 30 LIT/MIN 250 BAR</b>	<b>LDE/06</b>
<b>09</b>	<b>SOLENOID DIVERTER VALVES SINGOL OR MODULAR 3,6,8,10 WAYS</b>	<b>EDF</b>
<b>10</b>	<b>MANUAL DIVERTER VALVES 3,6 WAYS</b>	<b>MDF</b>



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<b>11</b>	<b>SOLENOID VALVES ¼" BSP MODULAR</b>	<b>TBV/06</b>
<b>12</b>	<b>SOLENOID VALVES CETOP 3 AND MANIFOLD</b>	<b>EL-08</b>
<b>13</b>	<b>SOLENOID VALVES CETOP 5 AND MANIFOLDS</b>	<b>EDL-10</b>
<b>14</b>	<b>DOUBLE CHECK VALVE PILOTATED</b>	<b>VDP</b>
<b>15</b>	<b>RELIEF /PRESSURE VALVES IN LINE</b>	<b>VMPT</b>
<b>16</b>	<b>HOSE RUPTURE VALVES( PARACADUTE)</b>	<b>VPCC</b>
<b>17</b>	<b>UNIDIRECTIONAL CHECK VALVES</b>	<b>VNR-C</b>
<b>18</b>	<b>OVERCENTER VALVES</b>	<b>VBB</b>
<b>19</b>	<b>FLOW REGULATOR 2 AND 3 WAYS COMPENSATED AND NOT</b>	<b>VRF</b>
<b>20</b>	<b>DIRECT ACTING SEQUENCE VALVES</b>	<b>VSQL</b>





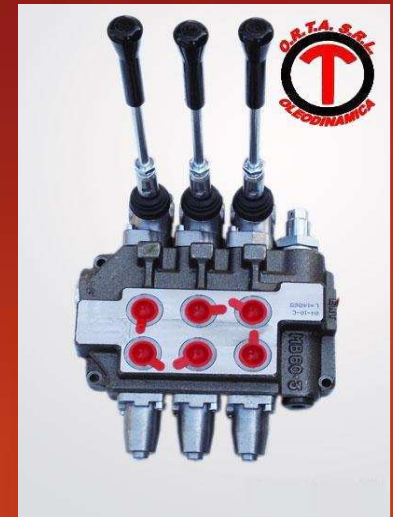
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<b>21</b>	<b>FLOATING AND ANTICAVITATION SOLENOID VALVES</b>	<b>FVA</b>
<b>22</b>		
<b>23</b>		
<b>24</b>		
<b>25</b>		
<b>26</b>		
<b>27</b>		
<b>28</b>		
<b>29</b>		
<b>30</b>		



# MONOBLOCK VALVES

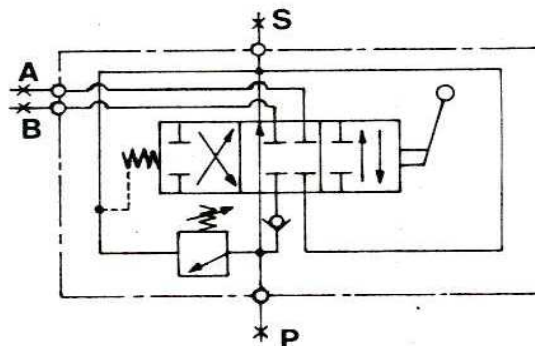


# MB25/1

# MONOBLOCK VALVES

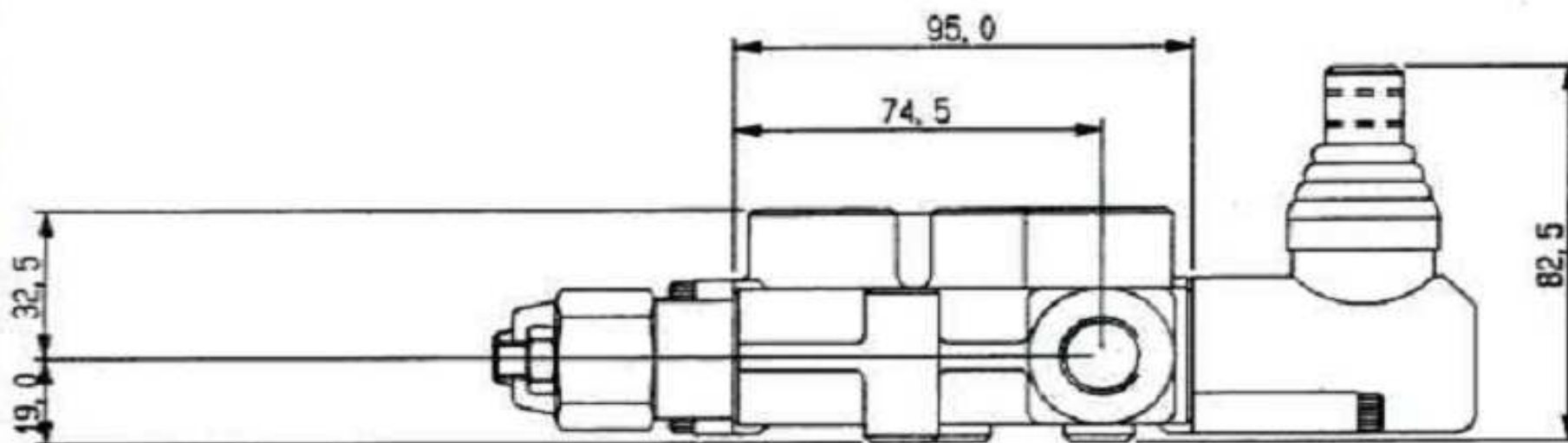
MAX FLOW	45 LIT/MIN
MAX PRESSURE	350 BAR
BACK PRESSURE	180 BAR
LEAKAGE TO 100 BAR	1CC/MIN
WEIGHT	KG. 2,3
CONFIGURATION	PARALLEL

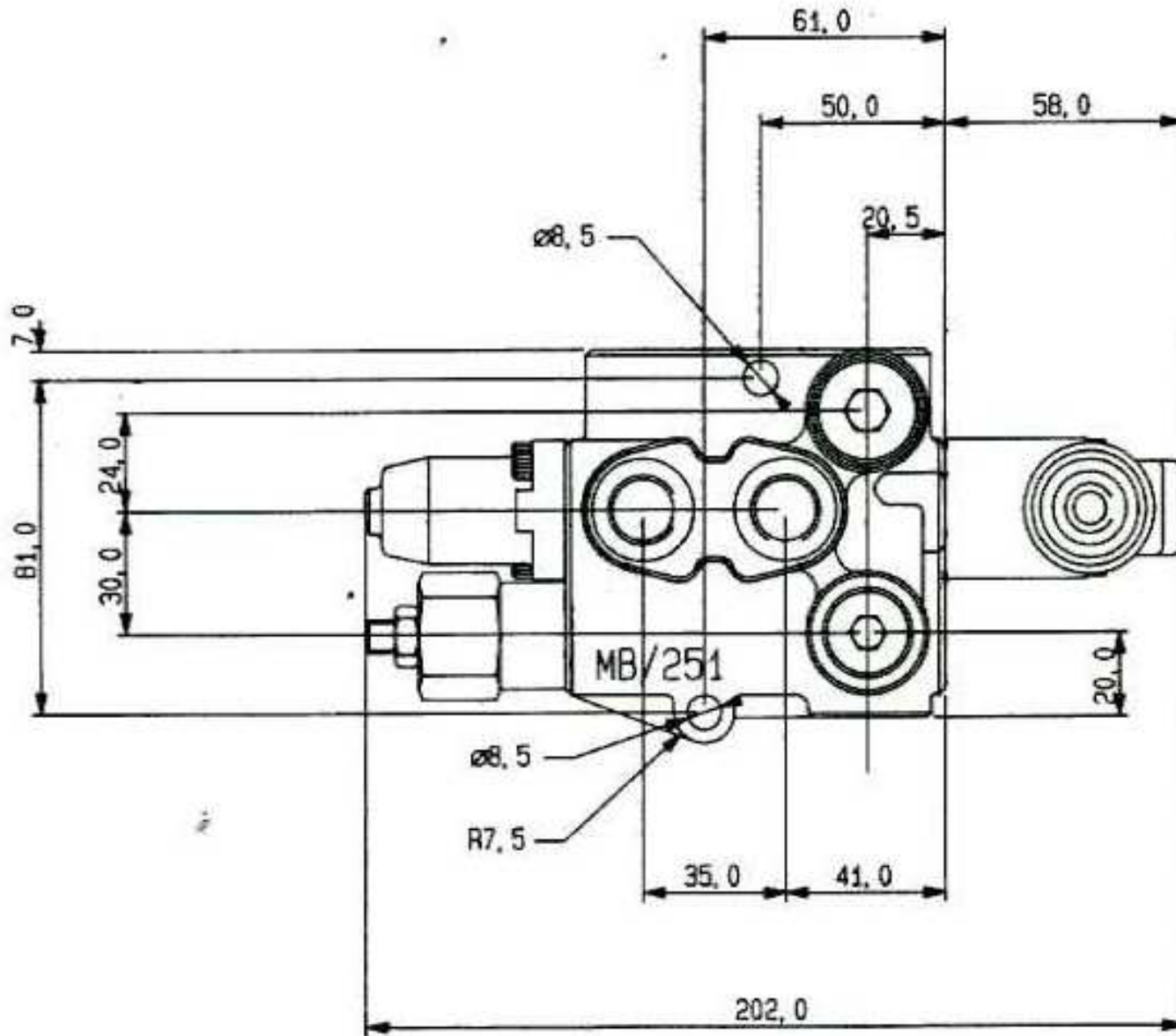
## STANDARD CONFIGURATION



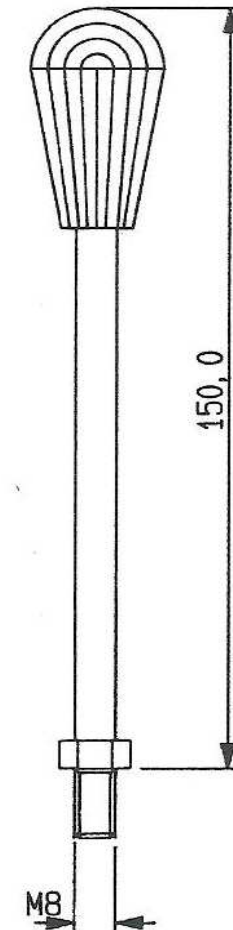
## STANDARD THREADS BSP GAS

Attacco	Dimens.	Dimens Spec
P	3/8"	1/2"
P sup	3/8"	1/2"
A/B	3/8"	1/2"
T	1/2"	1/2"
T sup	1/2"	1/2"





STANDARD  
LEVER  
MB/25



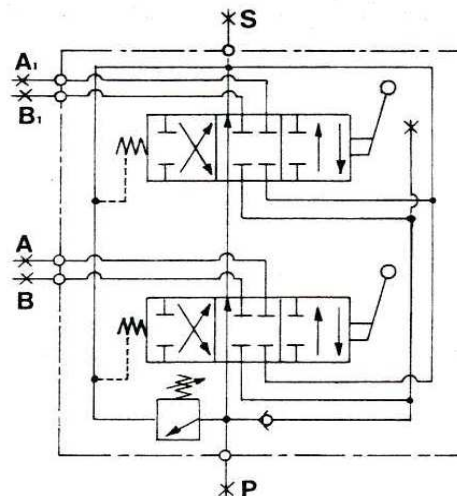


# MB25/2

# MONOBLOCK VALVES

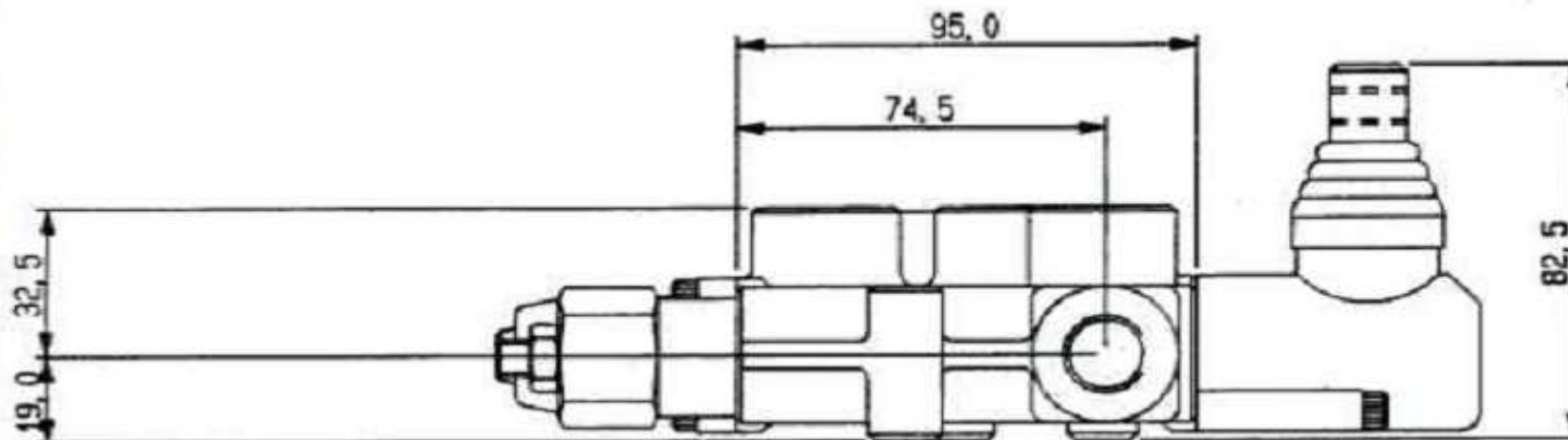
MAX FLOW	45 LIT/MIN
MAX PRESSURE	350 BAR
BACK PRESSURE	180 BAR
LEAKAGE TO 100 BAR	1CC/MIN
WEIGHT	KG. 3,5
CONFIGURATION	PARALLEL

## STANDARD CONFIGURATION



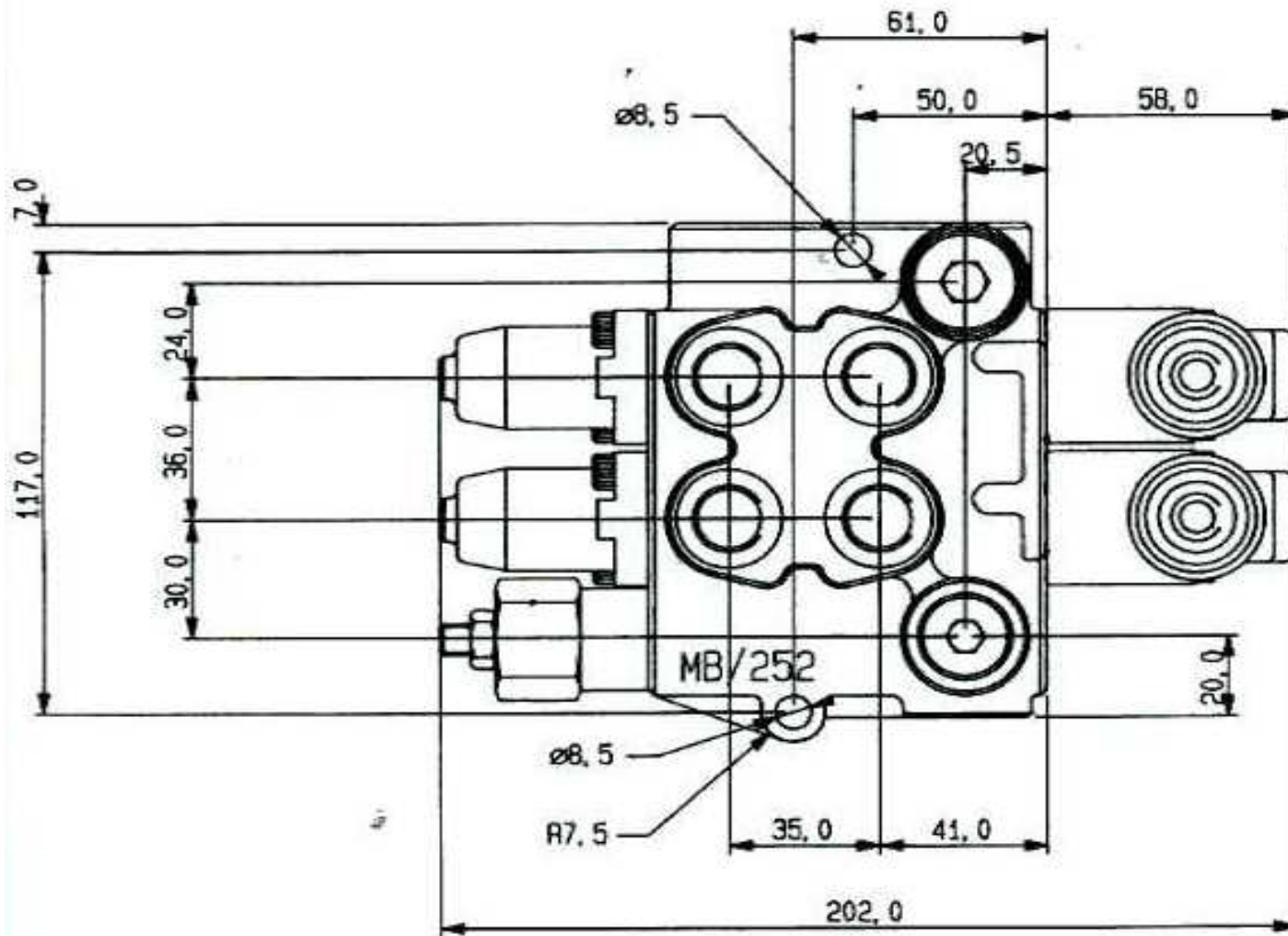
## STANDARD THREADS BSP GAS

Attacco	Dimens.	Dimens Spec
P	3/8"	1/2"
P sup	3/8"	1/2"
A/B	3/8"	1/2"
T	1/2"	1/2"
T sup	1/2"	1/2"



MB25/2

# MONOBLOCK VALVES



# MB25/3

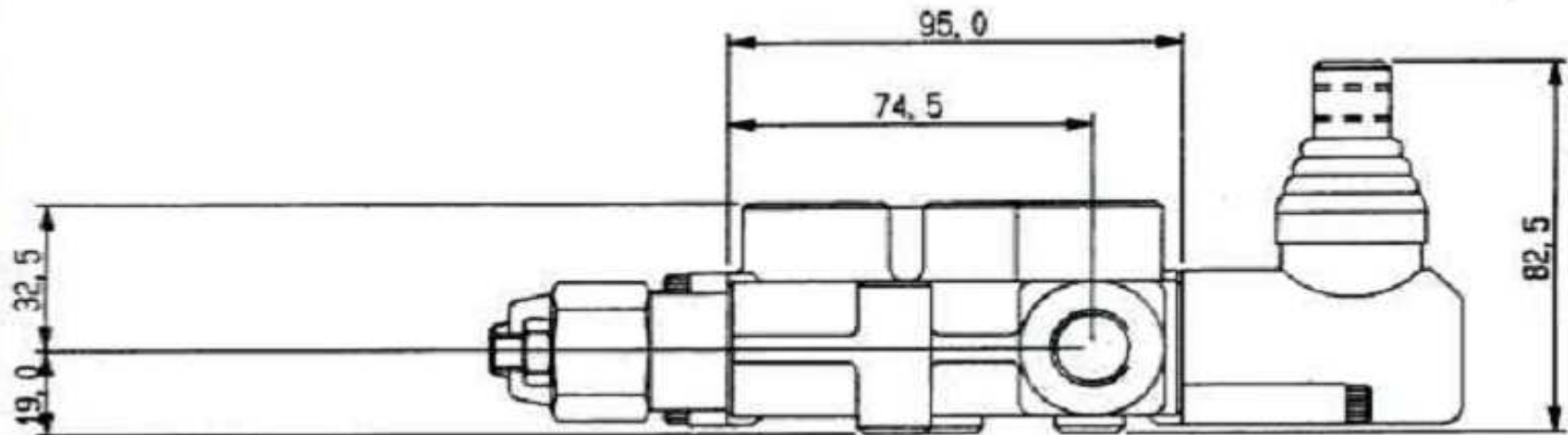
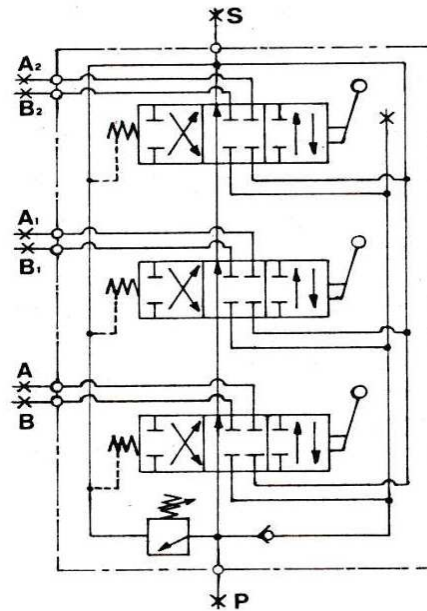
# MONOBLOCK VALVES

MAX FLOW	45 LIT/MIN
MAX PRESSURE	350 BAR
BACK PRESSURE	180 BAR
LEAKAGE	1CC/MIN
WEIGHT	KG. 4,7
CONFIGURATION	PARALLEL

## STANDARD THREADS BSP GAS

Attacco	Dimens.	Dimens Spec
P	3/8"	1/2"
P sup	3/8"	1/2"
A/B	3/8"	1/2"
T	1/2"	1/2"
T sup	1/2"	1/2"

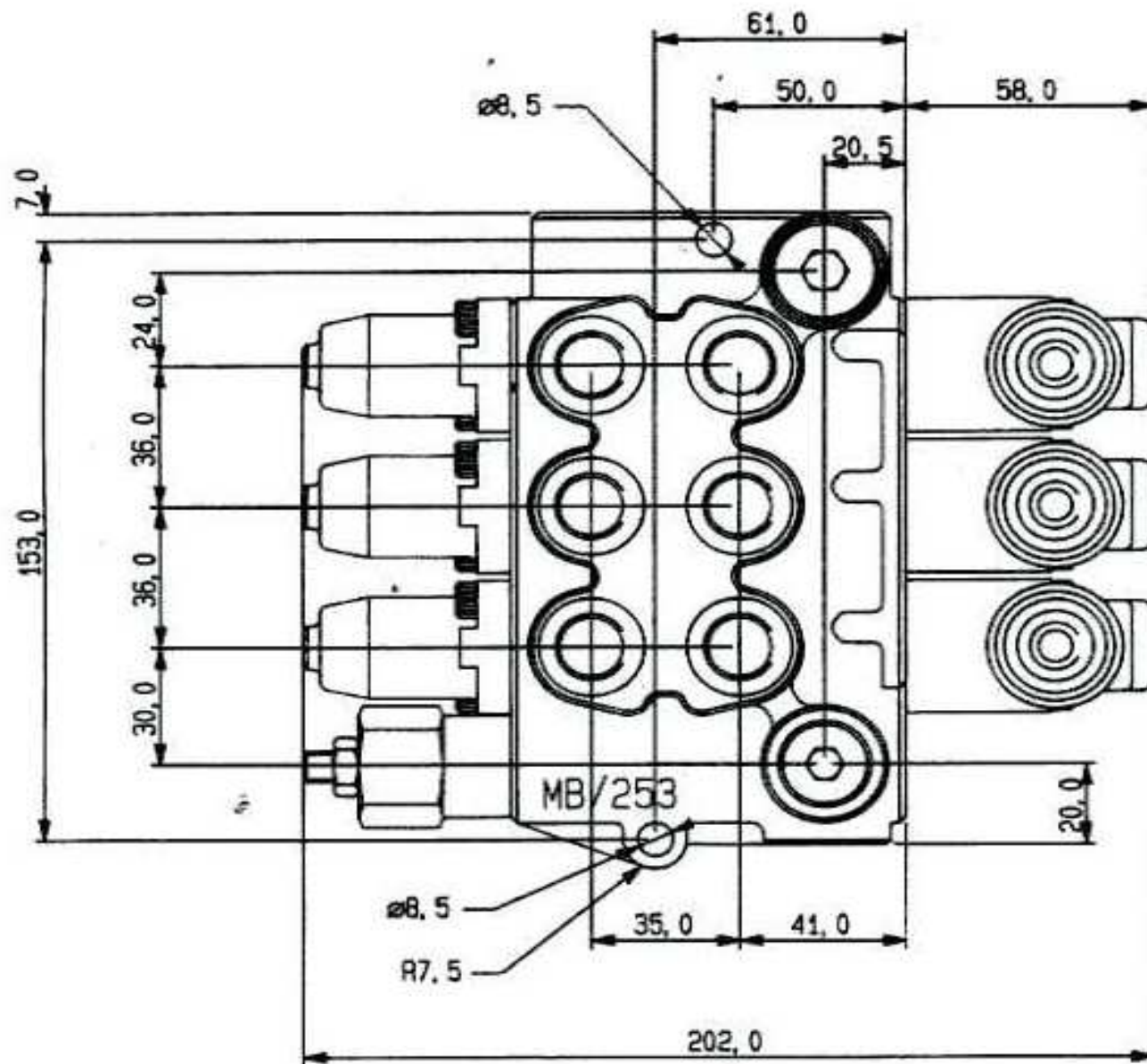
## STANDARD CONFIGURATION





MB25/3

# MONOBLOCK VALVES

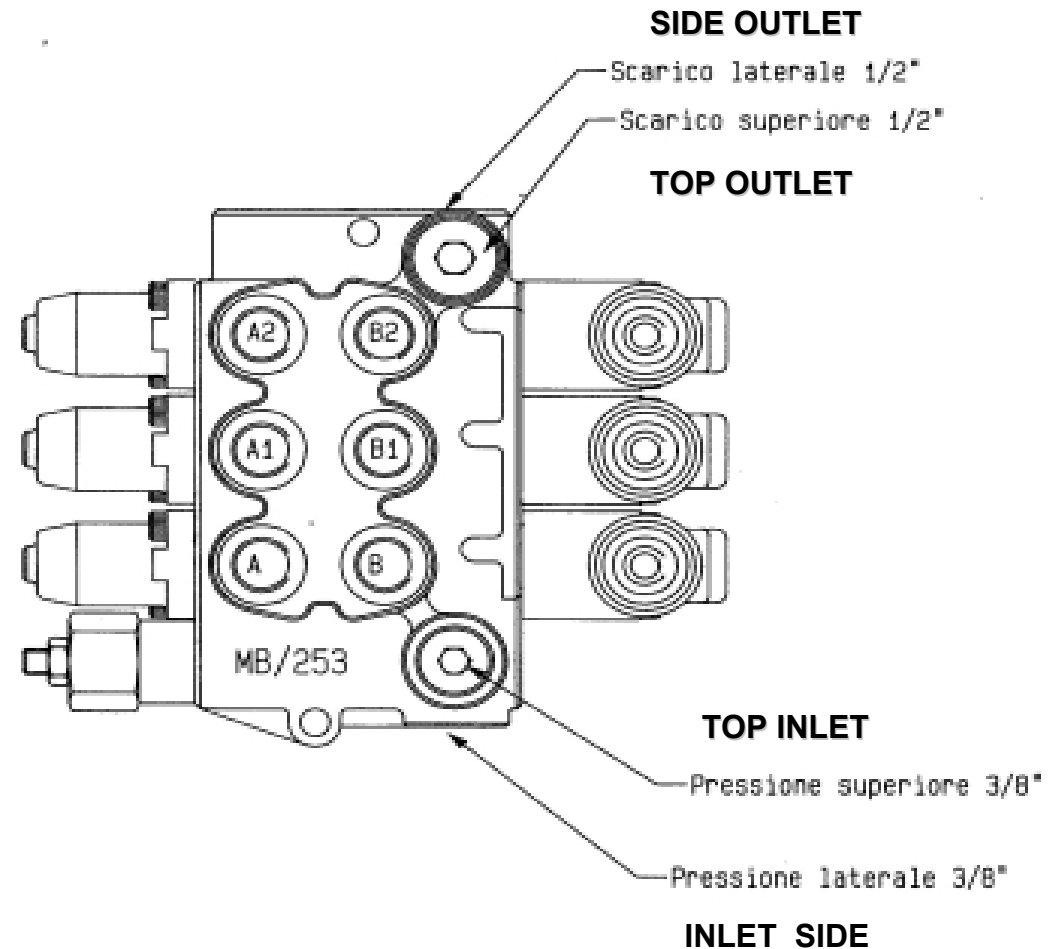




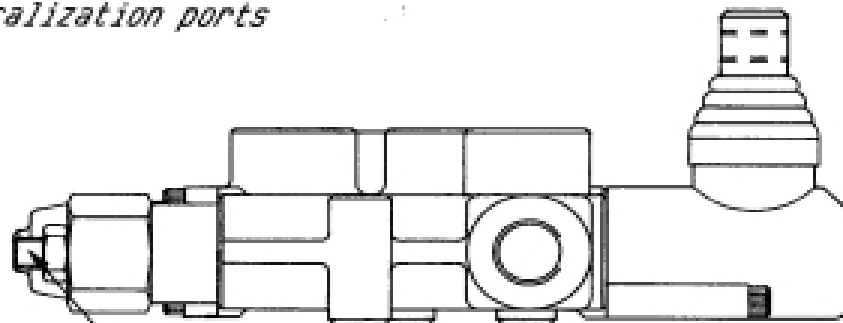
## CONFIGURATION CONNECTIONS P-A-B-T MB/25

### STANDARD THREADS BSP GAS

Attacco	Dimens.	Dimens Spec
P	3/8"	1/2"
P sup	3/8"	1/2"
A/B	3/8"	1/2"
T	1/2"	1/2"
T sup	1/2"	1/2"



Posizionamento attacchi del fluido  
*Localization ports*



**ADJUSTMENT OF PRESSURE**

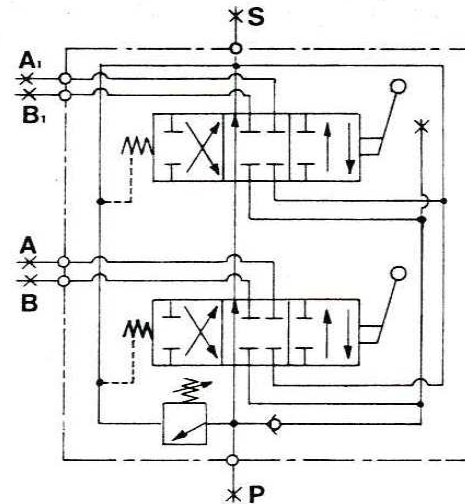
Regolazione pressione generale

# MB25/4

# MONOBLOCK VALVES

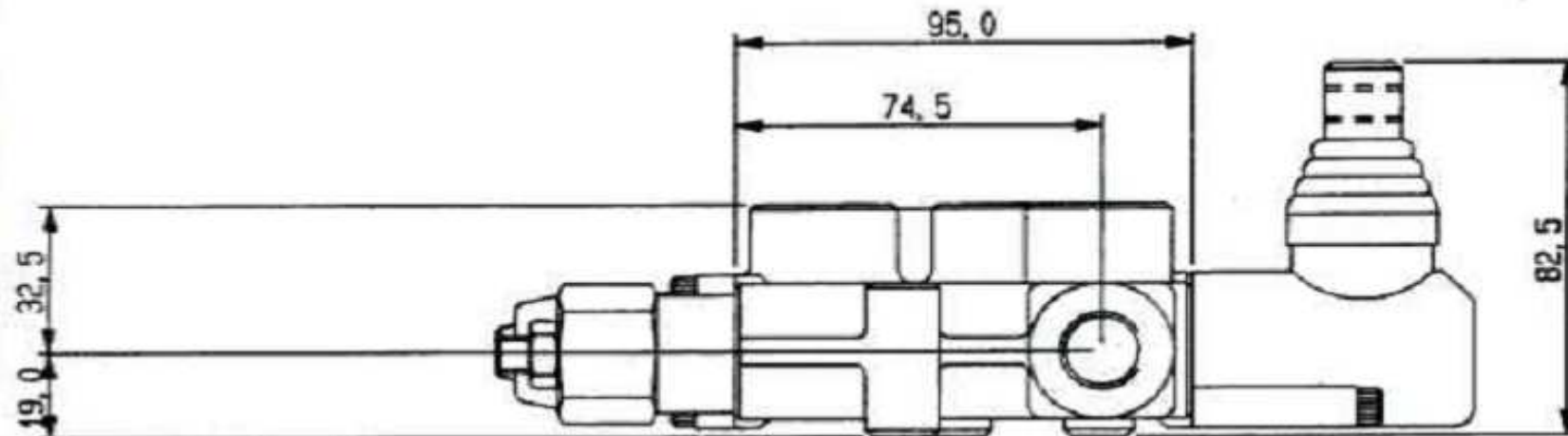
MAX FLOW	45 LIT/MIN
MAX PRESSURE	350 BAR
BACK PRESSURE	180 BAR
LEAKAGE TO 100 BAR	1CC/MIN
WEIGHT	KG. 6
CONFIGURATION	PARALLEL

## STANDARD CONFIGURATION



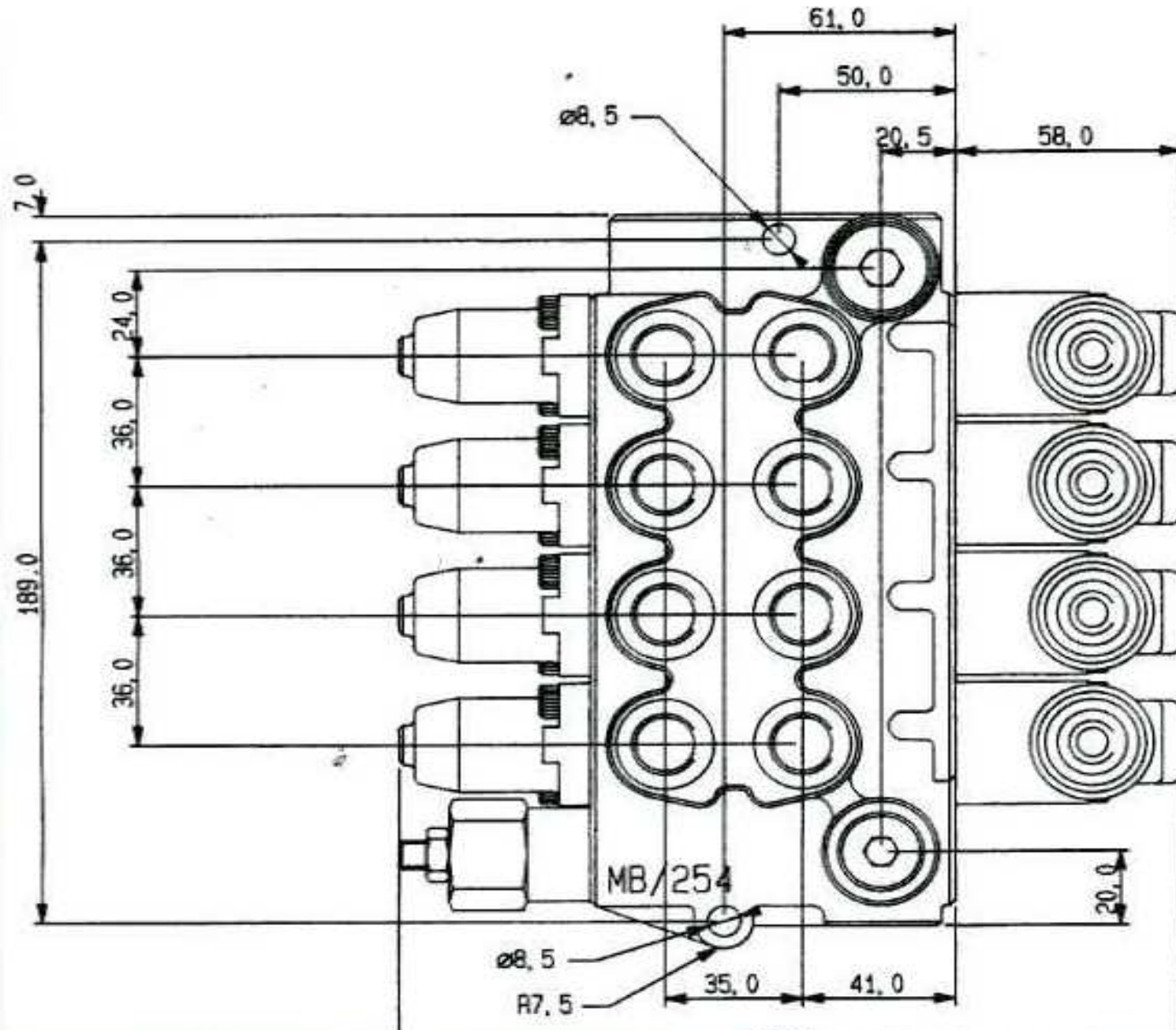
## STANDARD THREADS BSP GAS

Attacco	Dimens.	Dimens Spec
P	3/8"	1/2"
P sup	3/8"	1/2"
A/B	3/8"	1/2"
T	1/2"	1/2"
T sup	1/2"	1/2"



MB25/4

# MONOBLOCK VALVES

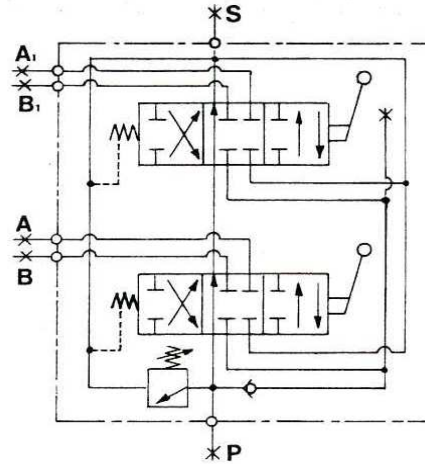


# MB25/5

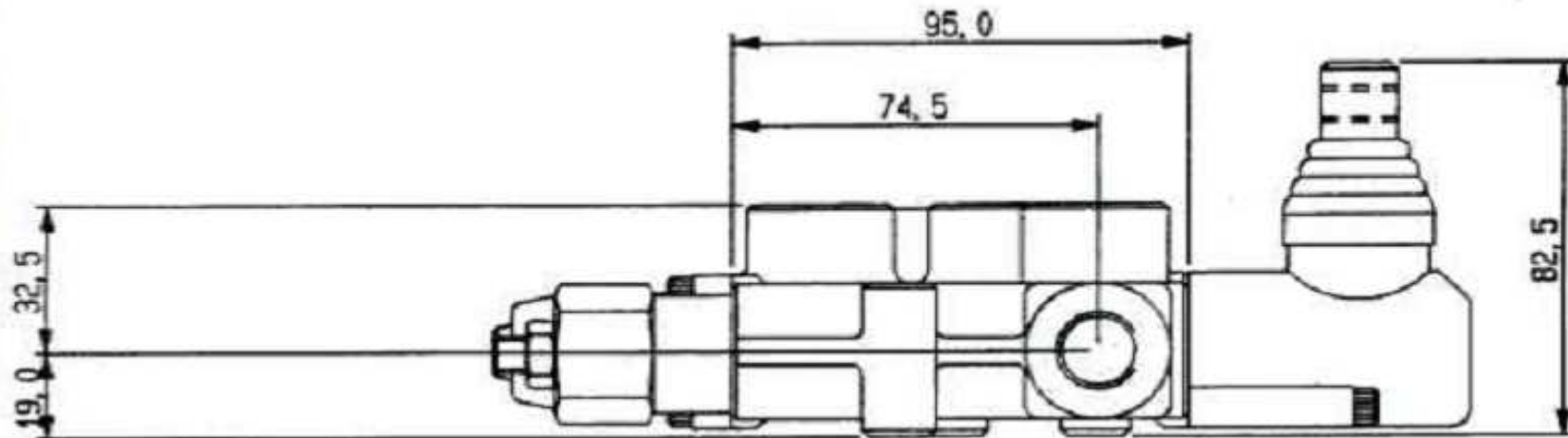
# MONOBLOCK VALVES

MAX FLOW	45 LIT/MIN
MAX PRESSURE	350 BAR
BACK PRESSURE	180 BAR
LEAKAGE TO 100 BAR	1CC/MIN
WEIGHT	KG. 7.2
CONFIGURATION	PARALLEL

## STANDARD CONFIGURATION



Attacco	Dimens.	Dimens Spec
P	3/8"	1/2"
P sup	3/8"	1/2"
A/B	3/8"	1/2"
T	1/2"	1/2"
T sup	1/2"	1/2"



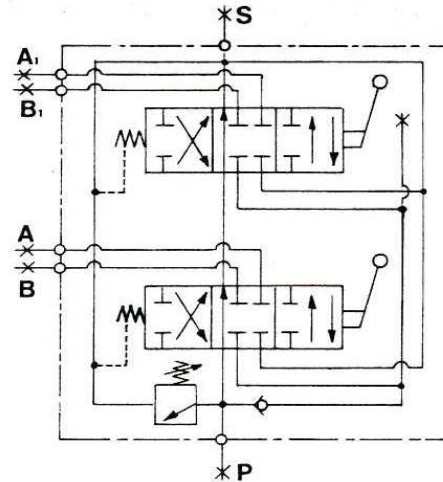


# MB25/6

# MONOBLOCK VALVES

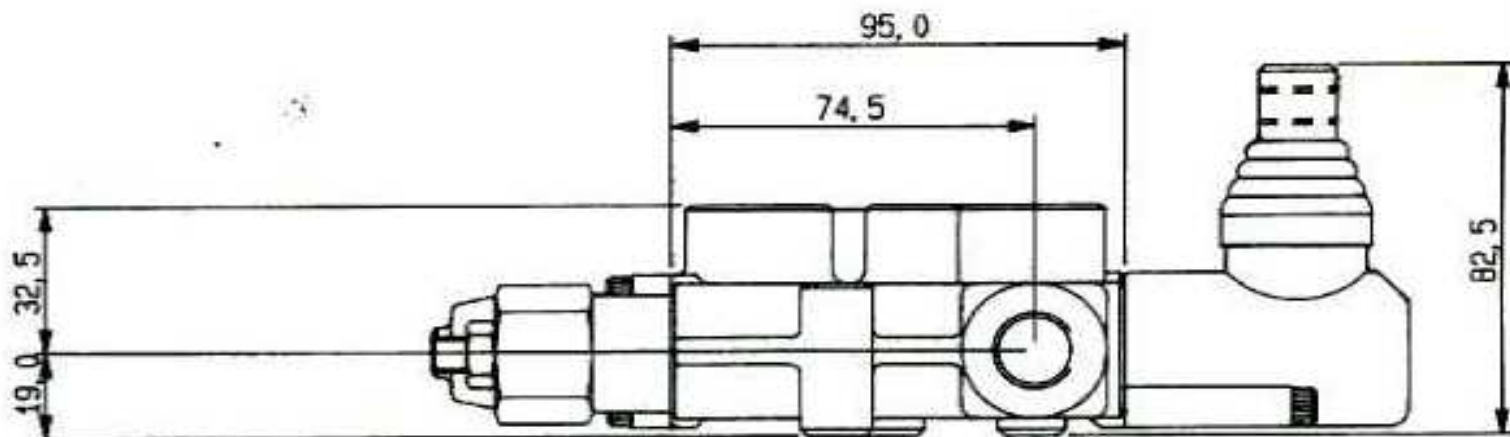
MAX FLOW	45 LIT/MIN
MAX PRESSURE	350 BAR
BACK PRESSURE	180 BAR
LEAKAGE TO 100 BAR	1CC/MIN
WEIGHT	KG. 8.4
CONFIGURATION	PARALLEL

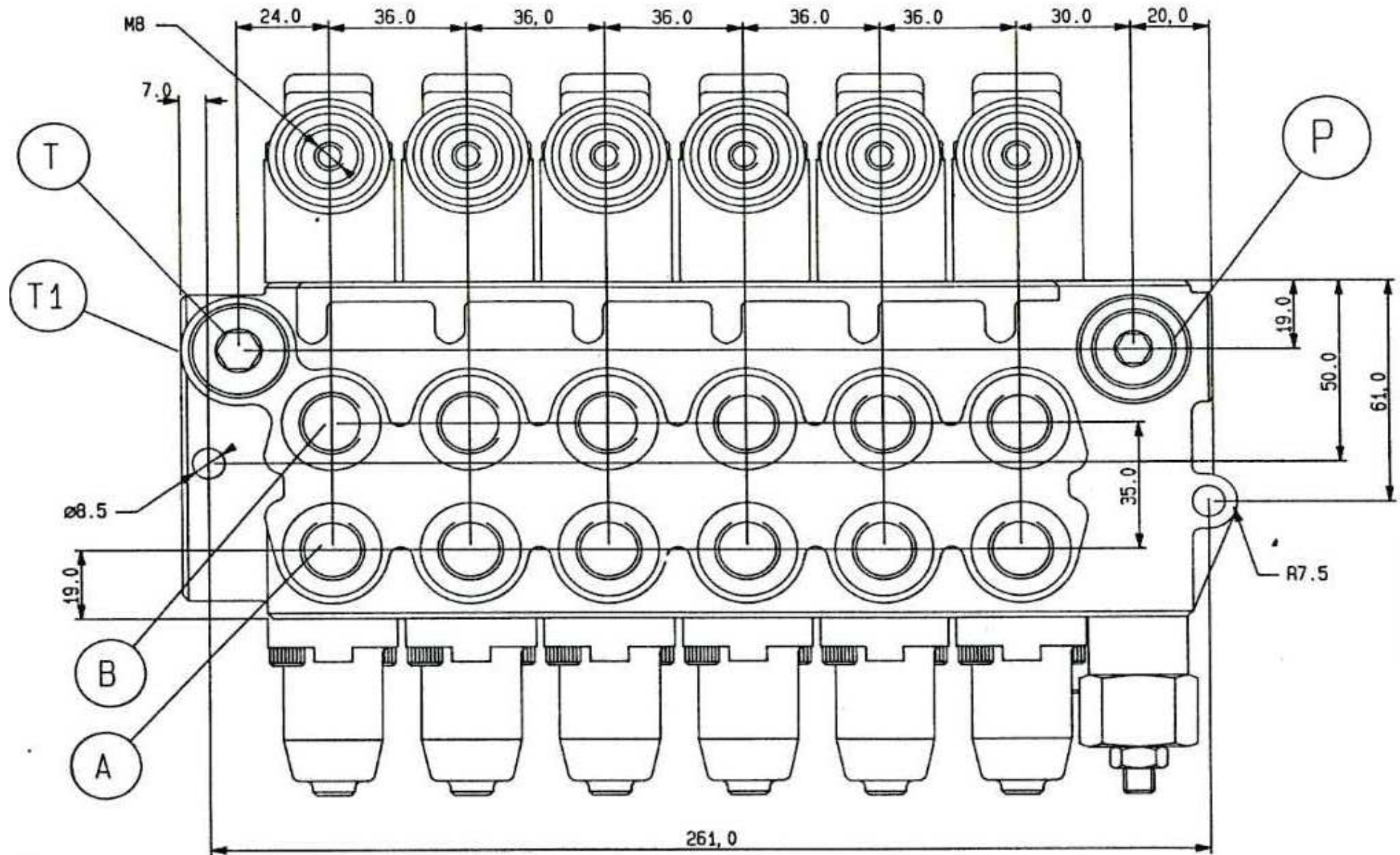
## STANDARD CONFIGURATION



## STANDARD THREADS BSP GAS

Attacco	Dimens.	Dimens Spec
P	3/8"	1/2"
P sup	3/8"	1/2"
A/B	3/8"	1/2"
T	1/2"	1/2"
T sup	1/2"	1/2"



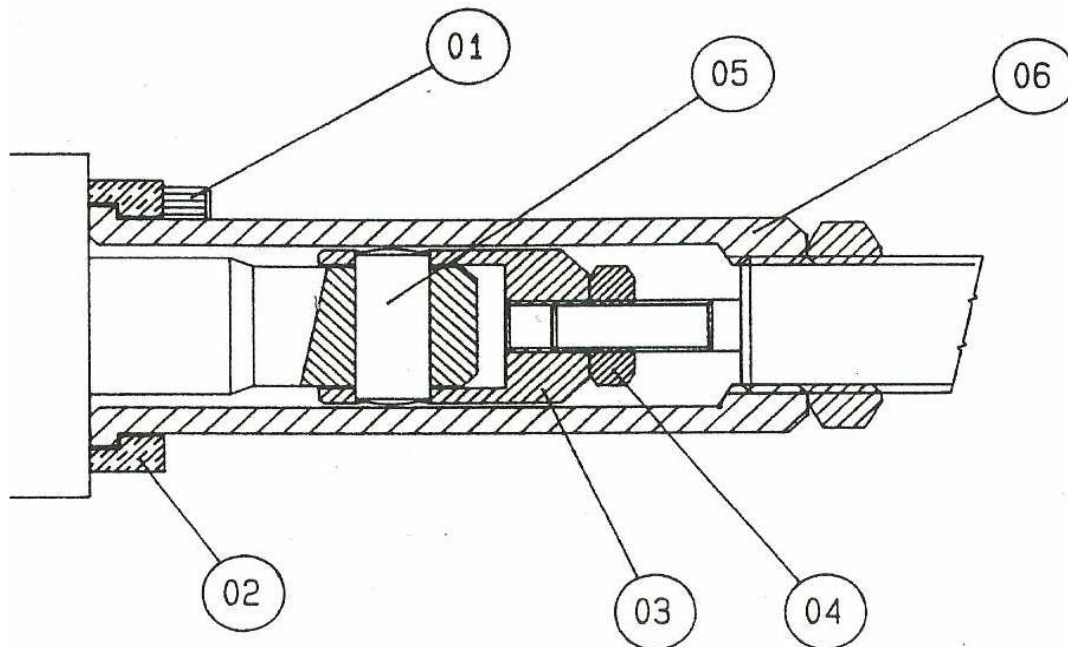


## CABLE CONTROL FOR MB/25 MB/31 MB/35

Pos.	Denominazione	Qaunt.	Codice
01	Vite di fissaggio M5X14	2	50-015
02	Flangia di fissaggio	1	01-063
03	Attacco stelo	1	01-103
04	Dado M6	1	65-053
05	Spina di attacco	1	01-069
06	Cappello portacavo	1	01-102

### KIT FOR CABLE CONTROL

ATTACCO PCD/35

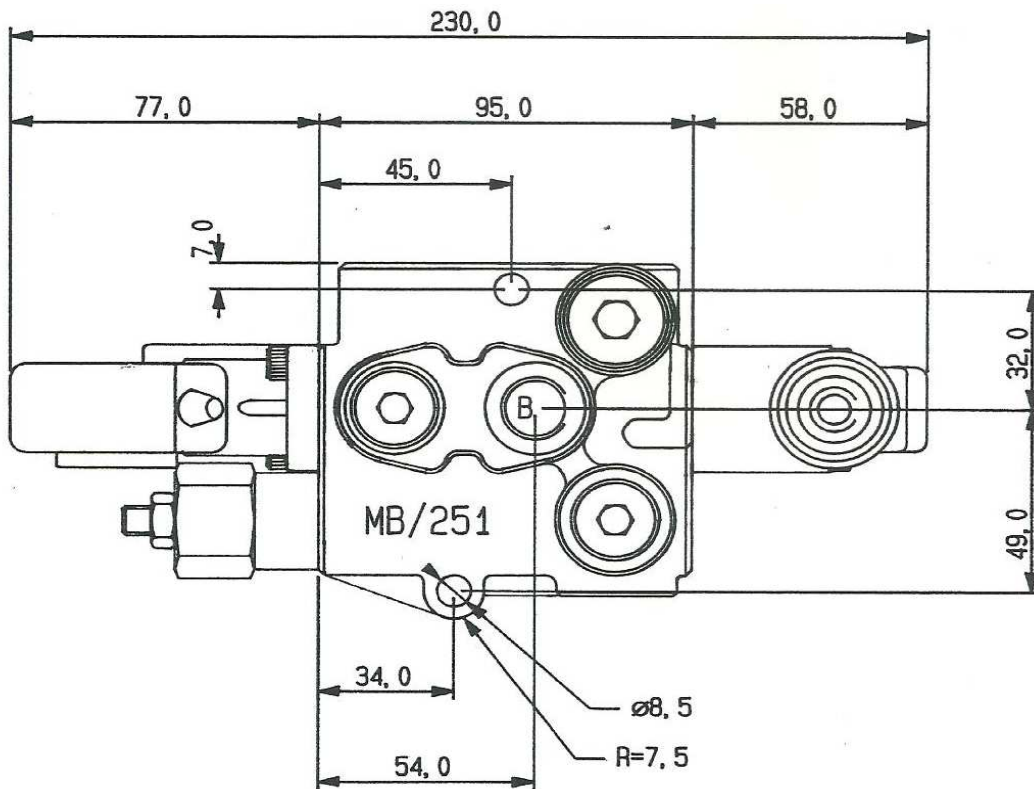
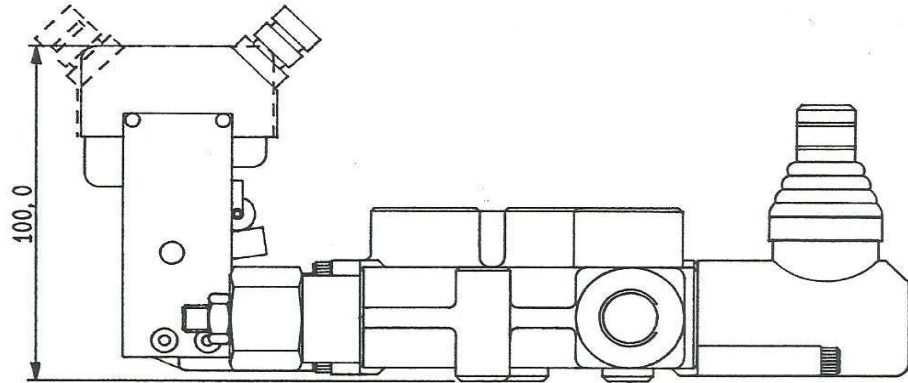


THE SAME FOR MB/25-MB/31-MB/35





## MB/25 WITH SWITCH CONTROL MICRO



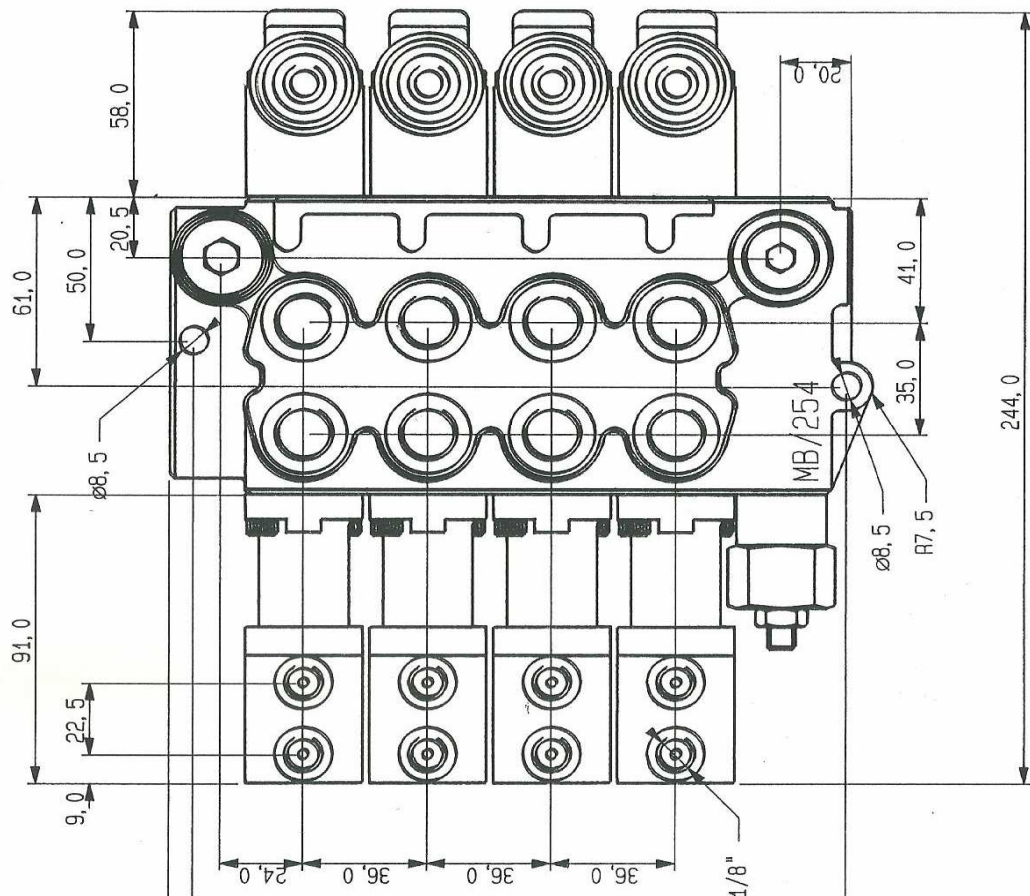
## THE SAME KIT FOR MB/25- MB/35

### CODICI DI ORDINAZIONE ORDER CODES

MB/35 - 4 - A1-A1-A1-A1 - MAMF - M 4 - CL		
Tipo Type		Custodia in lamiera Plate housing
Numero di leve Number of spools	1 2 3 4	Omettere se non richiesta To omit if not requested
Primo cursore First spool		1 una leva one spool
Secondo cursore Second spool		2 due leve two spools
Terzo cursore Third spool		3 tre leve three spools
Quarto cursore Fourth spool		4 quattro leve four spools
		M in batteria in bank
		MS singolo single
		MAMF standard standard
		MPR servizio pesante duty service

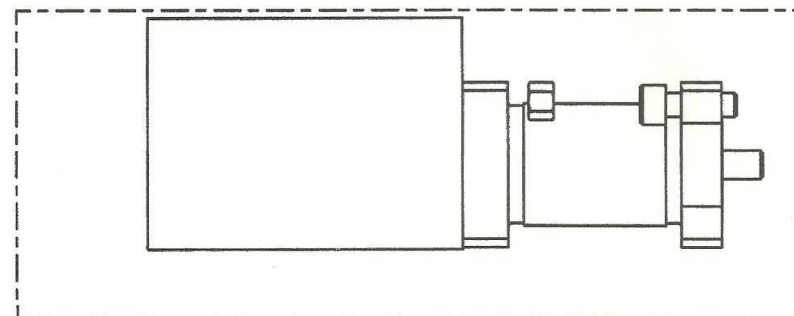
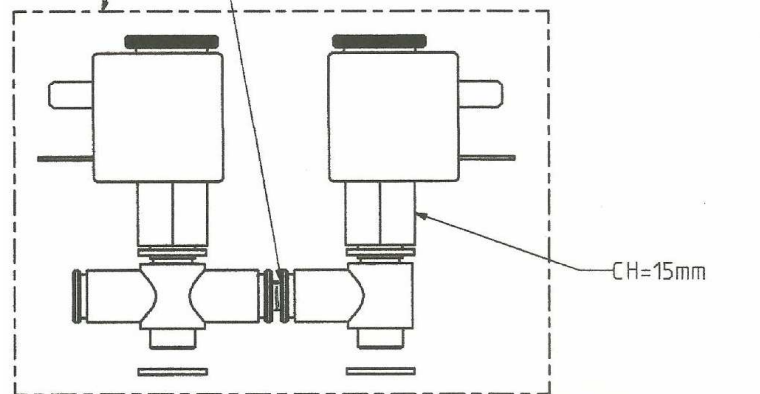


## MB/25 PNEUMATIC AND ELETRO-PNEUMATIC CONTROL

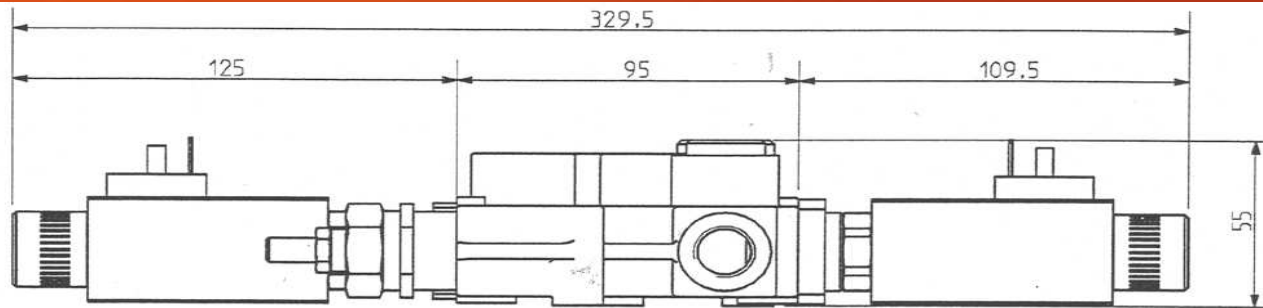


- 14-0021 MB/60-LDA/16 24 DC
- 14-0016 MB/60-LDA/16 12 DC
- 15-0048 MB/35-MB/25-LD/08-LDB/12 24 DC
- 15-0051 MB/35-MB/25-LD/08-LDB/12 12DC

Per 14-0021 e 14-0016 Tubo rilsan 6x1 L=38.5/39  
Per 15-0048 e 15-0051 Tubo rilsan 6x1 L=32.5/33



- 01-0060 MB/25-MB/
- 15-0740 LD/08-LDB/
- 08-0130 MB/60-LDA/16



**ELETTRIC ON-OFF CONTROL**

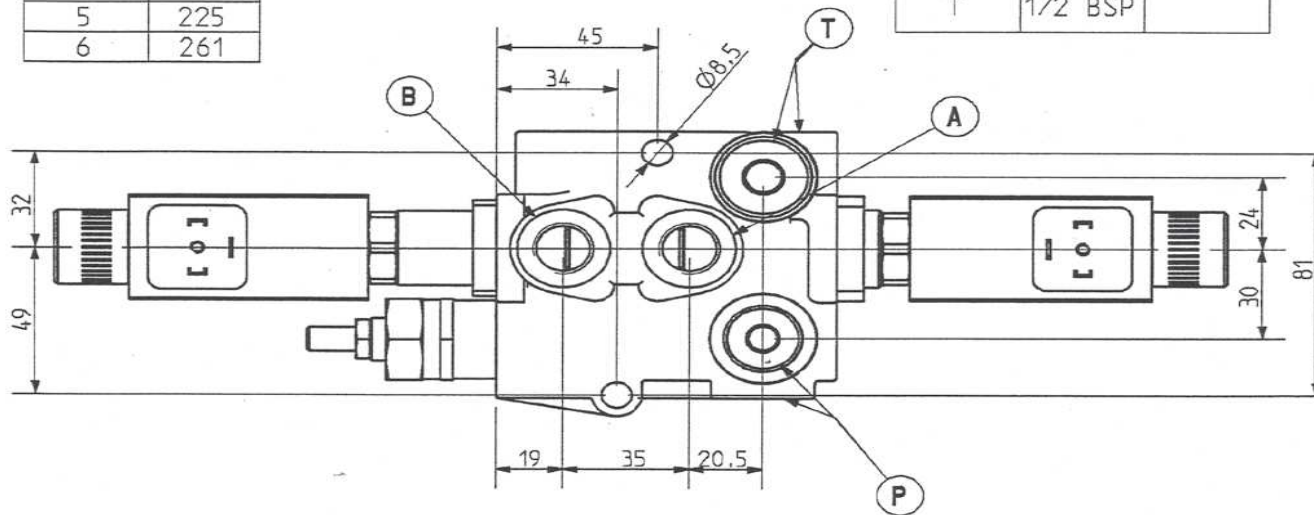
N° Sect	-A-
1	81
2	117
3	153
4	189
5	225
6	261

**FIXING HOSE-A-**

Ports	Thread	Option
P-A-B	3/8 BSP	1/2 BSP
T	1/2 BSP	

**TYPE OF CIRCUITS AVAILABLE**

<b>AED</b>	<b>DOUBLE ACTING</b>
<b>EED</b>	<b>SINGLE ACTING</b>
<b>CED</b>	<b>A e B in T</b>



\* Standard

Max Flow	Exc Press	Solenoids	Watts	Ampere	Connect
55	150	12 DC	40*	3.33	DIN 43650
45	180	24 DC	40*	1.66	DIN 43650
35	210		50	4.16	
25	250		50	2.08	

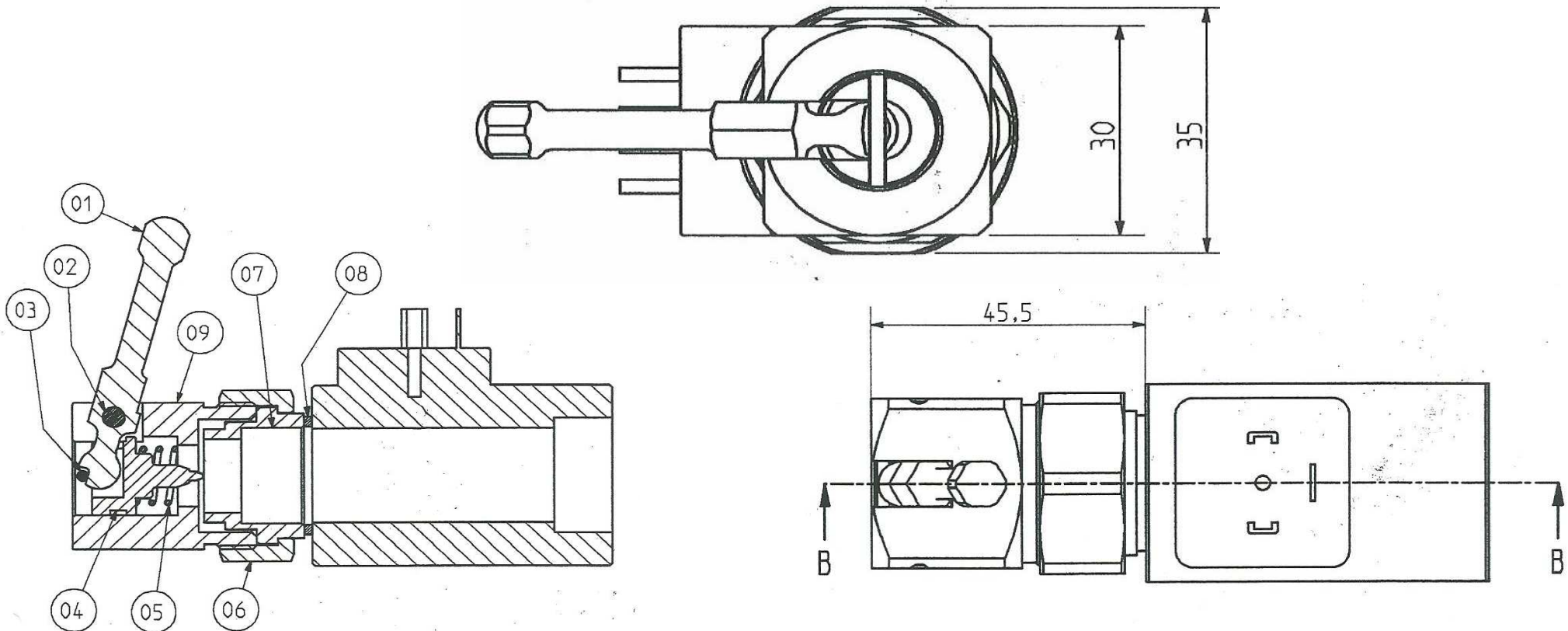
Queste prestazioni richiedono un filtraggio di 20 Micron o inferiore

For this performance it's needed an filter cartridge 20 Micron or better

## MANUAL EMERGENCY DEVICE "DET" FOR MB/25 ON-OFF

Pos	Named	Code	QTY	Pos	Named	Code	Qty
01	Handle	02-180	1	05	Spring	M-118	1
02	Swivel	02-183	1	06	Nut	02-176	1
03	Retained pin	54-004	1	07*	Fixed screw	02-178	1
04	Spool	02-182	1	08	Spacers	55-053	1
				09	Main body	02-180	1

\* Pos 7 for EM35 is 02-172



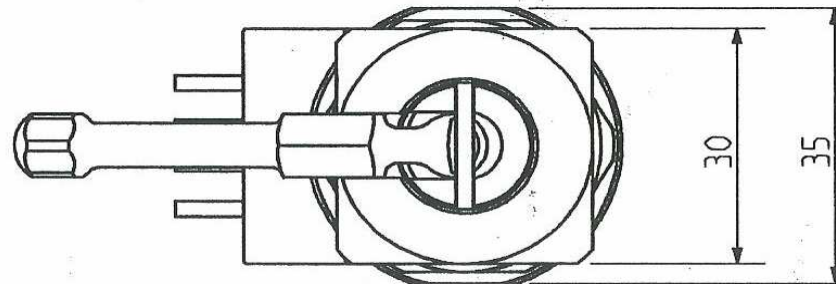
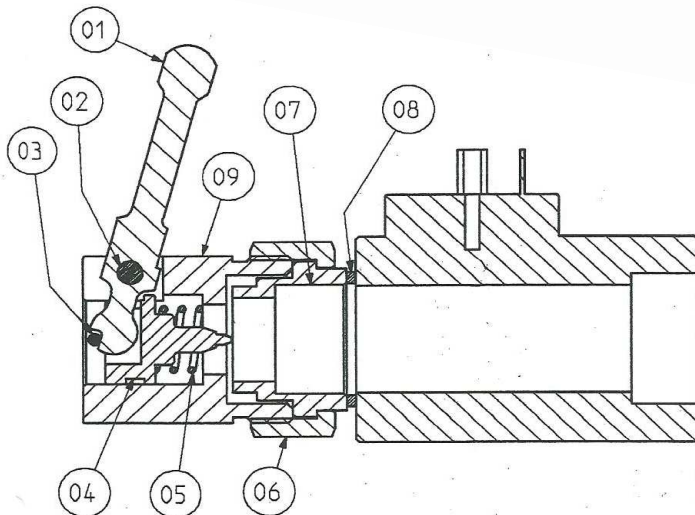
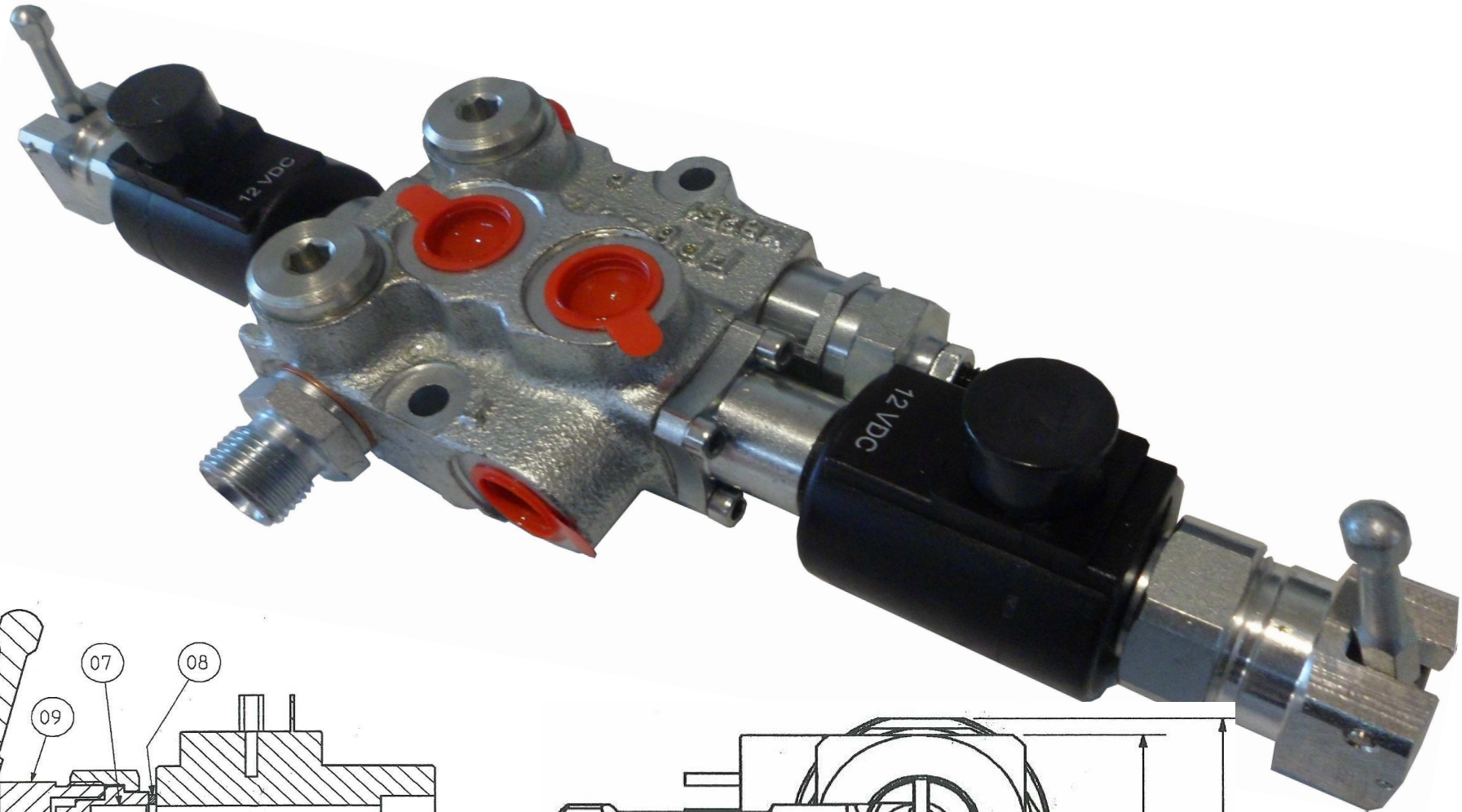


**MB/25**

**MONOBLOCK VALVES**



**MB25-1-AED+DET-12-YP+CARRY-OVER**

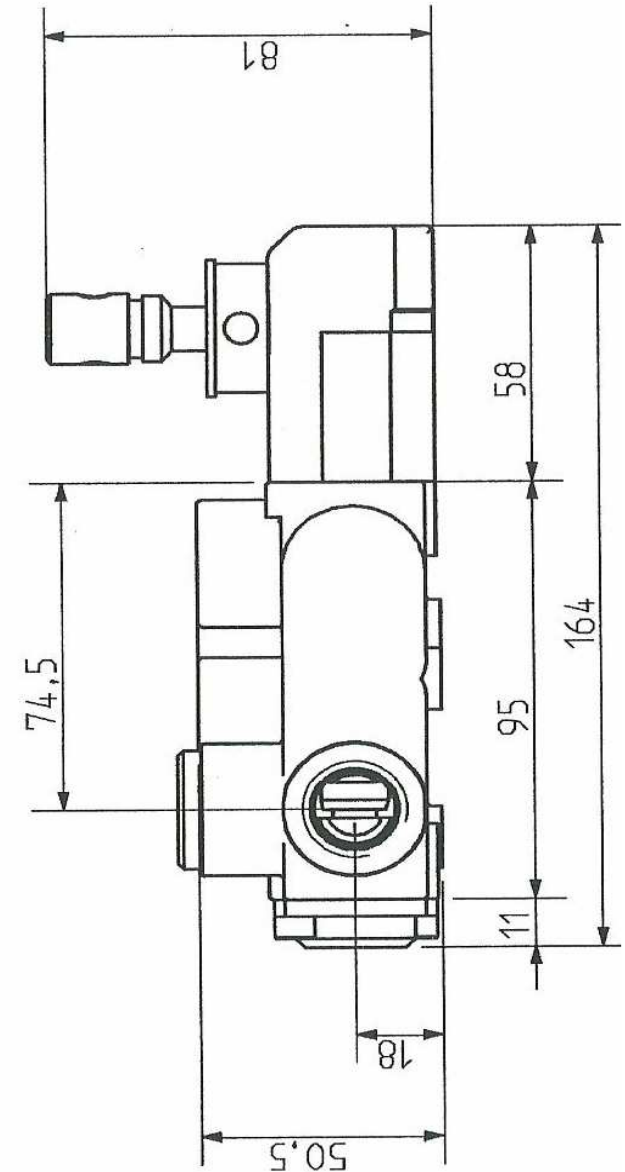
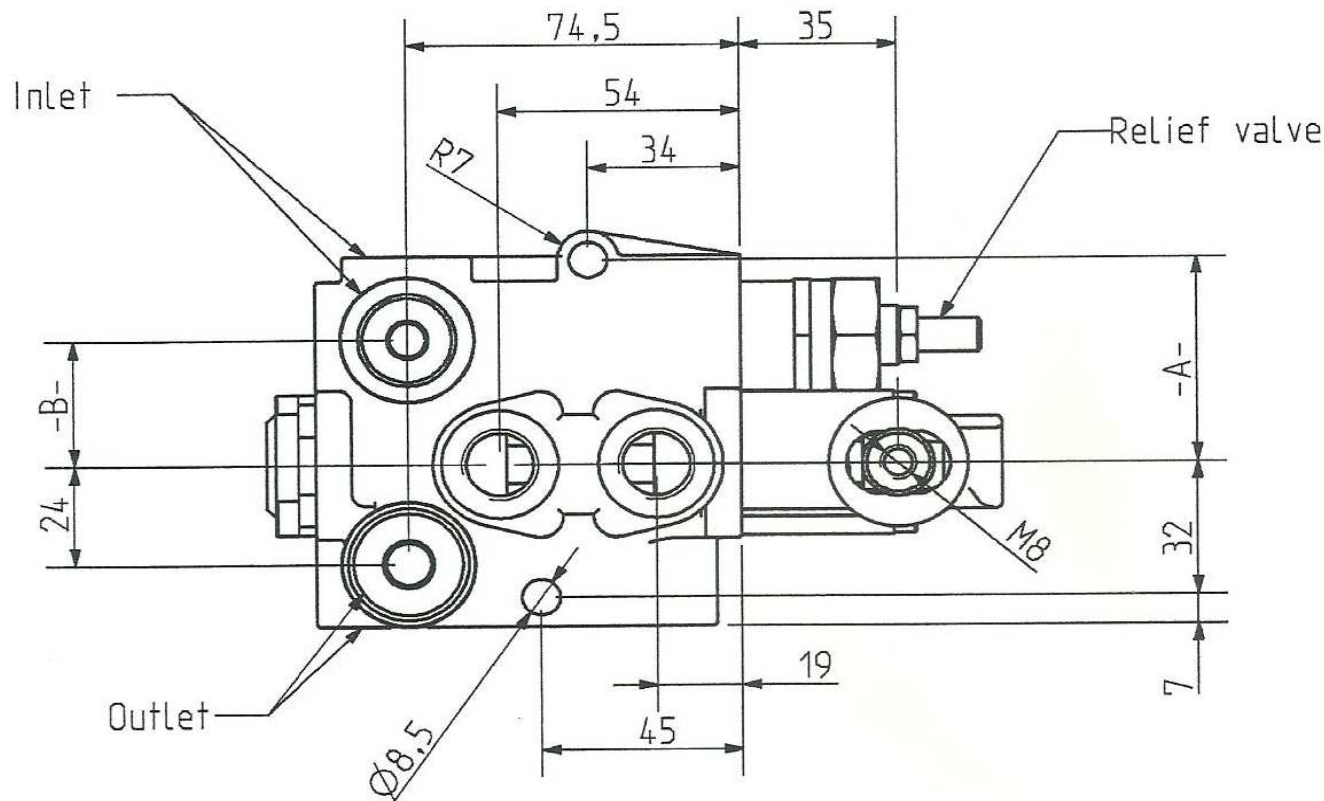




## MB25-DXC-COMPACT VERSION- INLET ON THE RIGHT

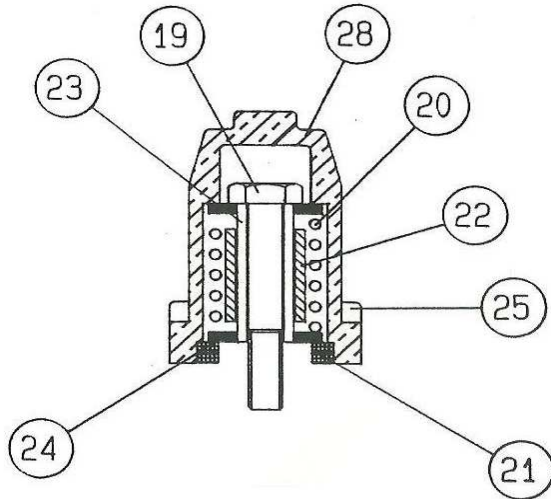
### FIXING HOLE

N° Sect	-A-	-B-	N° Sect	-A-	-B-
1	49	30	4	157	138
2	85	66	5	193	174
3	121	102	6	229	210

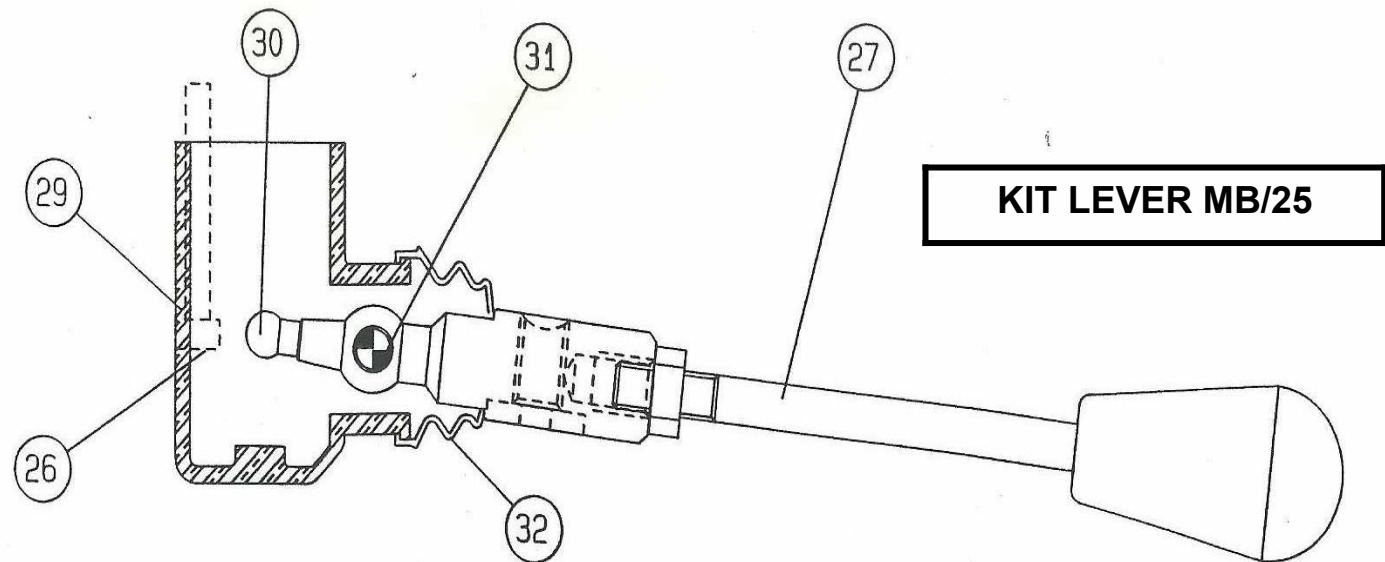


## KIT 1 AND KIT LEVER SPARE PARTS FOR MB/25

**KIT SPRING 1 FOR MB25**  
**KIT 1 COD . 000000**



POSIZ	NOME/NAME	CODICE-CODE	QUANT
19	VITE 6X40 SCREW	50022	1
20	MOLLA STELO SPRING SPOOL	M-0471	1
21	ANELLO DIST SPACERS	01196	2
22	DISTANZIALE SPACERS	01013	1
23	TUBO FISSO	01008	1
24	ROND. MOLLA WASHER SPRING	01007	2
25	VITE TCE 5X14 SCREW	50015	2
26	VITE TCE 5X40 SCREW	50014	2
27	ASTA LEVA	91000	1
28	CAPPELOTTO COVER	010111	1
29	CORPO SUPPORTO	010391	1
30	SNODO	01147	1
31	SPINA	01142	1
32	SOFFIETTO	R510	1



## SPARE PARTS LIST OF MB/25 BODY WITH RELIEF VALVES

ORTA sr1 BRESCIA-ITALIA-06/97

SCHEMA RICAMBI VALVOLA MB/25-TAVOLA 0001

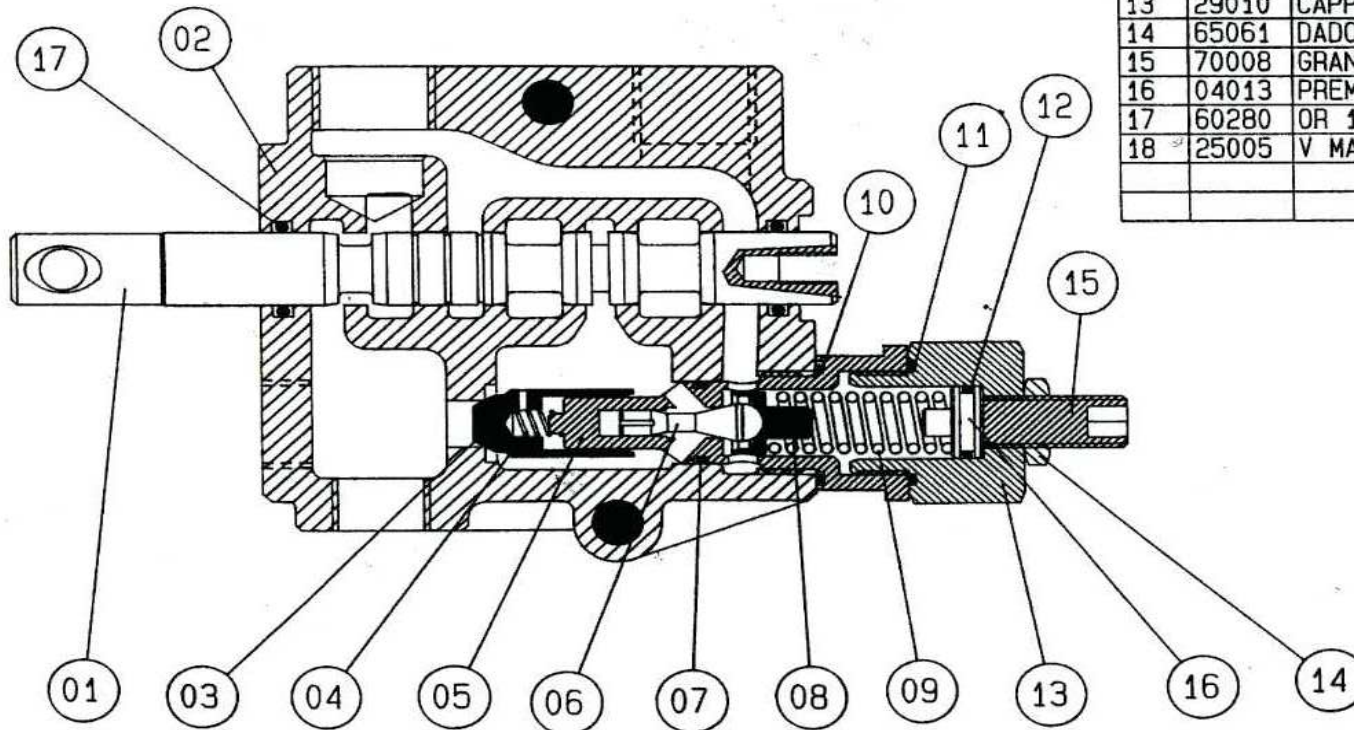
CORPO-

STELO-

VALVOLA DI MASSIMA

18-VALVOLA DI MASSIMA COMPLETA CODICE 25005

Pos	Cod	Denom	1 L	2 L	3 L	4 L	5 L	6 L
01	29027	STELO -A-	1	2	3	4	5	6
02	*	CORPO	1	1	1	1	1	1
03	29017	RITEGNO	1	1	1	1	1	1
04	M-064	MOLLA RIT	1	1	1	1	1	1
05	29009	VALV MAX	1	1	1	1	1	1
06	01192	SPIILLO MAX	1	1	1	1	1	1
07	60092	OR 12, 42x1, 78	1	1	1	1	1	1
08	01190	CAPP SPIILLO	1	1	1	1	1	1
09	M-078	MOLLA MAX	1	1	1	1	1	1
10	60097	OR 20, 35x1, 78	1	1	1	1	1	1
11	60097	OR 20, 35x1,	1	1	1	1	1	1
12	60090	OR 10, 82x1, 78	1	1	1	1	1	1
13	29010	CAPP MAX	1	1	1	1	1	1
14	65061	DADO BASSO M8	1	1	1	1	1	1
15	70008	GRANO 8X25	1	1	1	1	1	1
16	04013	PREMIMOLLA	1	1	1	1	1	1
17	60280	OR 13, 94X2, 62	2	4	6	8	10	12
18	25005	V MAX CPLT						



TIPO*	Codice
1 LEVA	29024
2 LEVE	29019
3 LEVE	29001
4 LEVE	29020
5 LEVE	29025
6 LEVE	29026

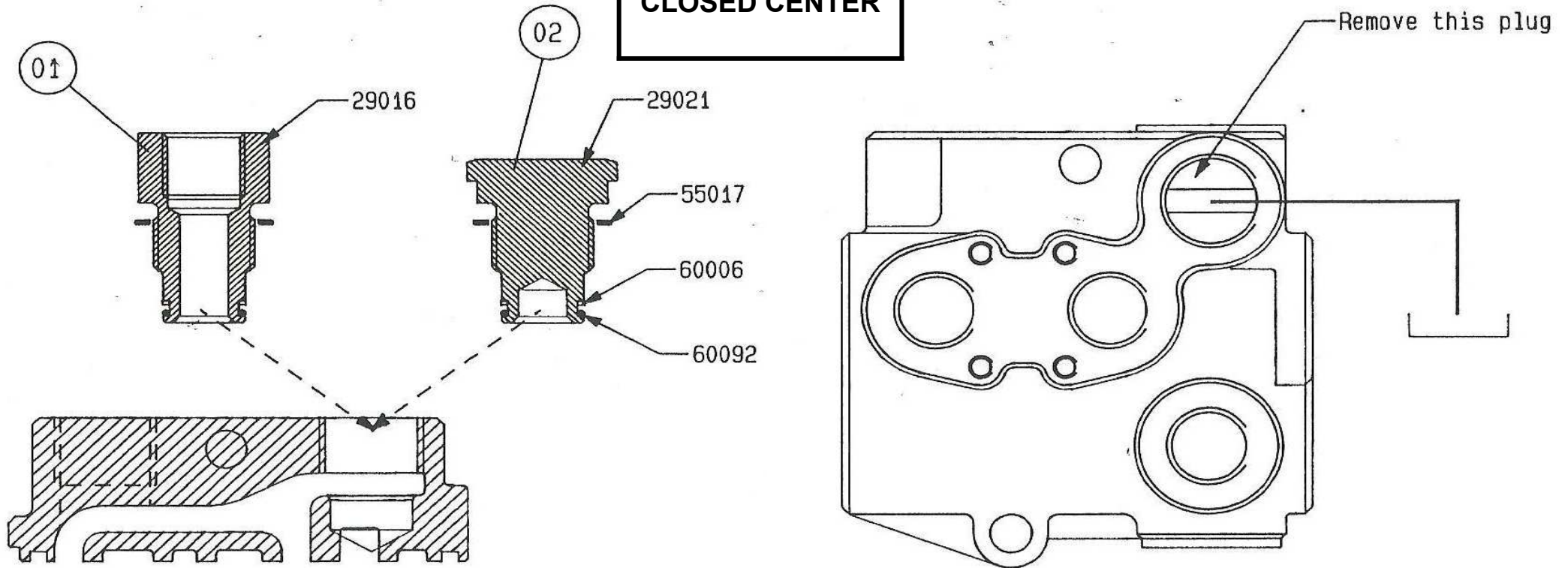


**ASSEMBLING PLUG CARRY-OVER OR CLOSED CENTER**

Pos	Cod	Denom
01	25030	COMPLETO H/25
02	25031	COMPLETO D/25

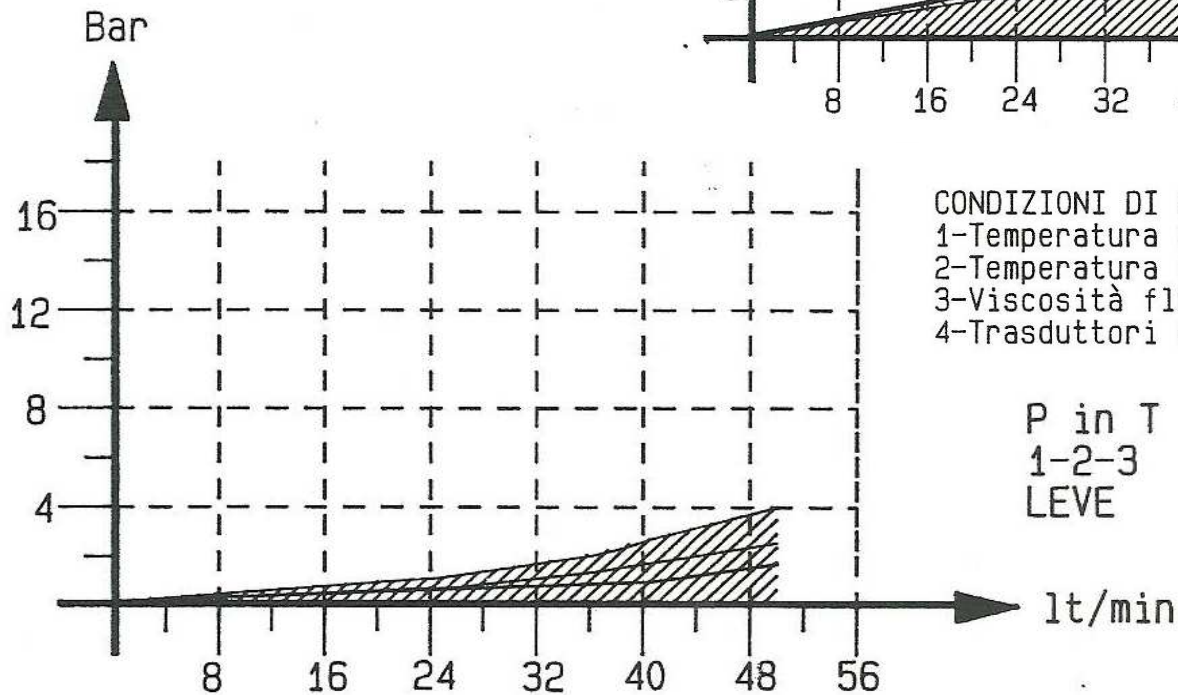
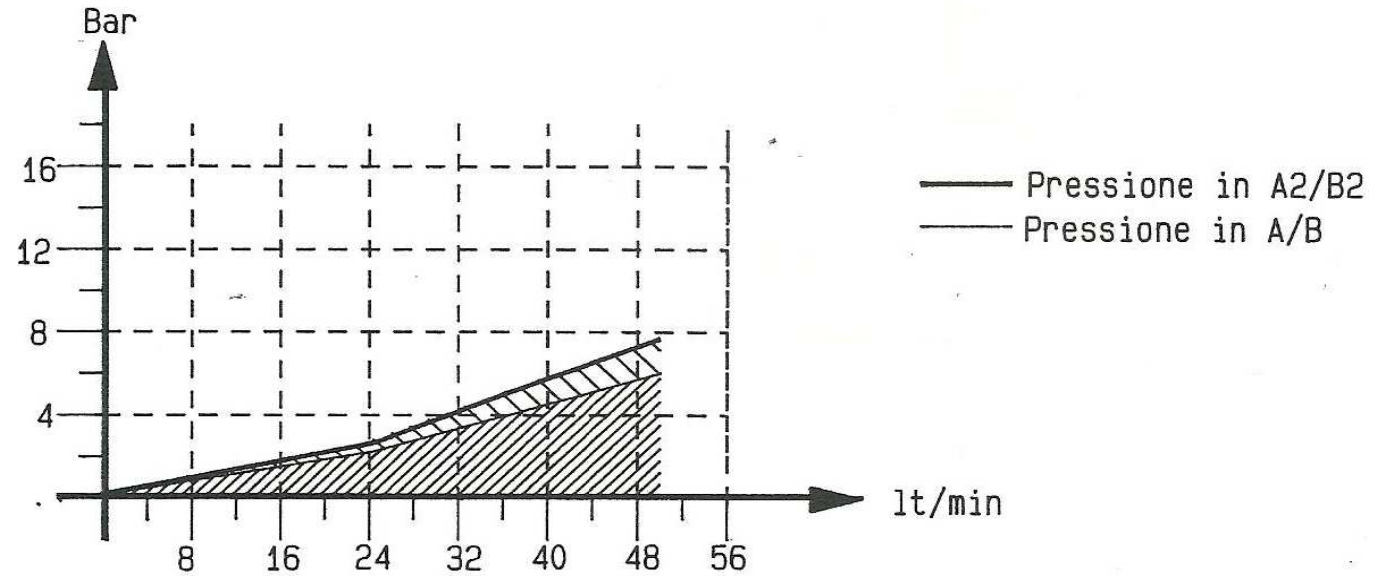
CARRY-OVER PLUG "H" FOR THE LINE OF PRESSURE

PLUG "D" FOR CLOSED CENTER

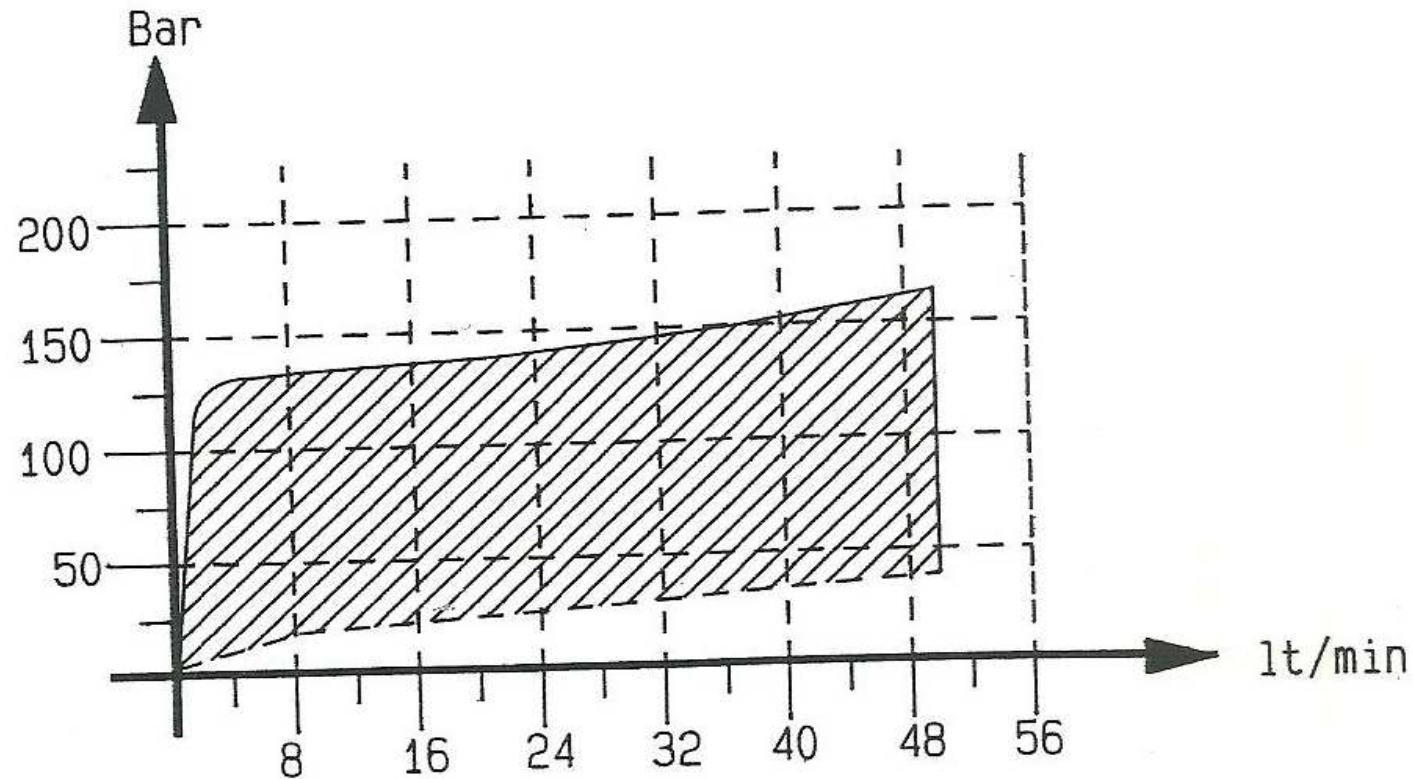




## DROP OF PRESSURE MB25



**CURVE PRESSURE /FLOW OF RELIEF VALVE DIRECT  
ACTING WITH SPRING 80-250 BAR**



CONDIZIONI DI PROVA

1-Temperatura ambiente= 18

2-Temperatura fluido= 50

3-Viscosità fluido= 3,5 E

4-Trasduttori di misura montati sulle bocche P e T superiori

# MONOBLOCK VALVES



## TYPE OF CIRCUIT AVAILABLE

SCHEMA SCHEME	SIGLA CODE	CARATTERISTICHE FEATURES	SCHEMA SCHEME	SIGLA CODE	CARATTERISTICHE FEATURES
	<b>A</b>	Cursore a centro aperto (P→S) in posizione centrale. Utilizzi chiusi. A leva spinta P→A, B→S. A leva tirata P→B, A→S.  Shaft pilot open center (P→S) in central position. Cylinder closed. Lever pushed P→A B→S. Lever pulled P→B A→S.		<b>I</b>	Cursore a centro aperto (P→S) in posizione centrale. Utilizzo A chiuso. Utilizzo B a scarico. A leva spinta P→A, B→S. A leva tirata P→B, A→S.  Shaft pilot open center (P→S) in central position. Port A closed. Port B at exhaust. Lever pushed P→A B→S. Lever pulled P→B A→S.
	<b>C</b>	Cursore a centro aperto (P→S) in posizione centrale. Utilizzi allo scarico. A leva spinta P→A, B→S. A leva tirata P→B, A→S.  Shaft pilot open center (P→S) in central position. Cylinders at the exhaust. Lever pushed P→A B→S, lever pulled P→B A→S.		<b>M</b>	Cursore a centro chiuso. In posizione centrale. Utilizzi allo scarico. A leva spinta P→A, B→S. A leva tirata P→B A→S. Ottenibile anche montando sullo scarico il tappo «D» con cursore tipo «C».
	<b>D</b>	Cursore a centro chiuso (P→) in posizione centrale. Utilizzi chiusi. A leva spinta P→A, B→S. A leva tirata P→B, A→S. Ottenibile anche montando sullo scarico il tappo «D» (tav. 0022)  Shaft pilot center closed (P→) in central position. Cylinders closed. Lever pushed P→A B→S lever pulled P→B A→S. It is possible to obtain it also mounting at the exhaust the cap «D» (tav. 0022)		<b>N</b>	Cursore a centro chiuso. In posizione centrale utilizzo B a scarico. Utilizzo A chiuso. A leva spinta P→A B→S. A leva tirata P→B A→S. Ottenibile anche montando sullo scarico il tappo «D» con cursore tipo «B».
	<b>B</b>	Cursore a centro aperto (P→S) in posizione centrale. Utilizzo B chiuso, utilizzo A allo scarico. A leva spinta P→S, B→S a leva tirata P→B, A→S.  Shaft pilot center open (P→S) in central position. Cylinder B closed; cylinder A at the exhaust. Lever pushed P→A B→S lever pulled P→B A→S.		<b>O</b>	Cursore a centro chiuso. In posizione centrale utilizzo A a scarico. Utilizzo B chiuso. A leva spinta P→A, B→S a leva tirata P→B A→S. Ottenibile anche montando sullo scarico il tappo «D» con cursore tipo «B».
	<b>E</b>	Cursore a centro aperto (P→S) in posizione centrale per cilindri a semplice effetto. Utilizzo chiuso. A leva spinta P-B-S. A leva tirata P-B  Shaft pilot center open (P→S) in central position for cylinders simple effect. Cylinder closed. Lever pushed P-B→S. Lever pulled P→S.		<b>P</b>	Cursore a centro aperto. per cilindri a semplice effetto o motori unidirezionali. In posizione centrale utilizzo B a scarico. a leva tirata P→B  Shaft pilot open center. For cylinders simple effect or unidirectional engines. In central position cylinder B at the exhaust. Lever pulled P→B
	<b>F</b>	Cursore a centro aperto (P→S) in posizione centrale per cilindri a semplice effetto. Utilizzo chiuso. A leva spinta P→A. a leva tirata P-A-S.  Shaft pilot open center (P→S) in central position for cylinders simple effect. Cylinder closed. Lever pushed P→A. Lever pulled P-A-S.		<b>Q</b>	Cursore a centro aperto per cilindri a semplice effetto o motori unidirezionali. In posizione centrale utilizzo A, a scarico a leva spinta P→A.  Shaft pilot open center for cylinders simple effect or unidirectional engines. In central position cylinder A at the exhaust. Lever pushed P→A.
	<b>G</b>	Cursore a centro aperto (P→S) in posizione centrale. Utilizzi chiusi. Per cilindri a doppio effetto con IV posizione flottante. A leva spinta P→A, B→S. A leva ulteriormente spinta A-B→S con aggancio di ritenuta. A leva tirata P→B, A→S.  Shaft pilot center open (P→S) in central position. Cylinders closed. For cylinders double effect. Lever pushed P→A B→S. Lever much more pushed A-B→S with hooking of groove. Lever pulled P→B A→S.			



# MONOBLOCK VALVES



## TYPE OF CONTROL AVAILABLE

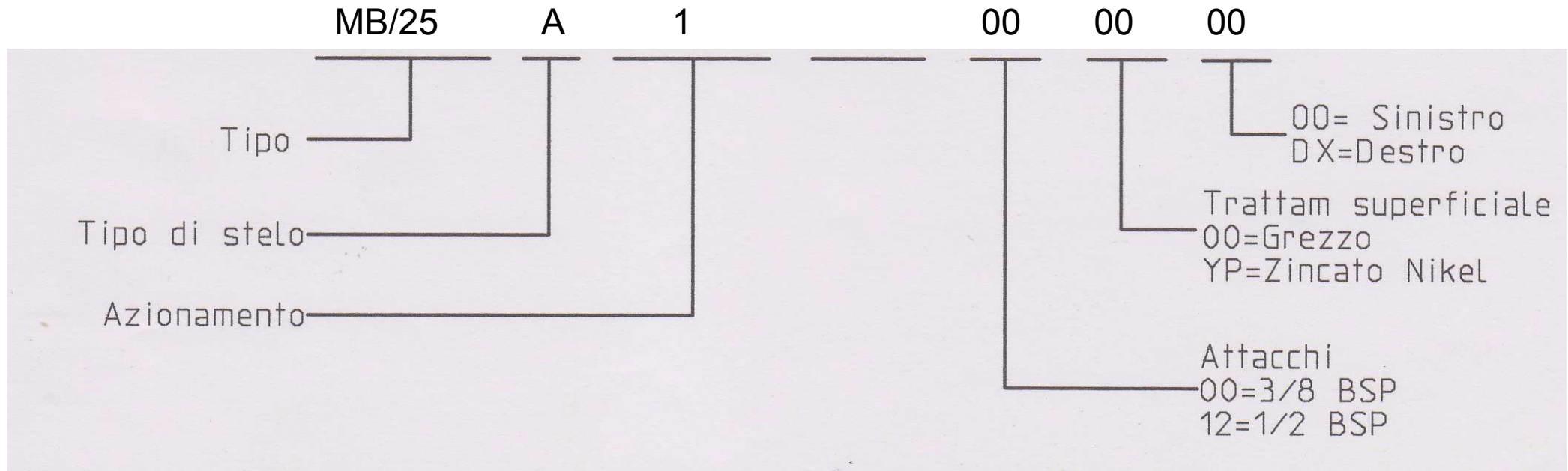
SCHEMA SCHEME	SIGLA CODE	CARATTERISTICHE FEATURES	SCHEMA SCHEME	SIGLA CODE	CARATTERISTICHE FEATURES
	<b>1</b>	Posizione 2: stabile. Posizioni 1-3: ritorno a molla in posizione 2. Position 2: stable. Position 1-3: spring return in pos. 2.		<b>4</b>	Ritenuta a scatti nelle posizioni estreme. Transitorio aperto = 4C, transitorio chiuso = 4D. Groove release in extremis position. Transient open = 4C - Transient closed = 4D
	<b>213</b>	Posizione 3: stabile. Leva normalmente rientrata tirando la leva vado in posizione 1. Transitorio aperto = 213-C - transitorio chiuso = 213-D. Position 3: stable. Lever normally reentered pulling the lever go in position 1. Transient open = 213-C - Transien closed = 213-D		<b>423</b>	Ritenuta a scatti nelle posizioni 2-3 posizione centrale e a leva spinta stabili. Groove release in positions 2-3. Central position and stabiles in pushed lever.
	<b>212</b>	Posizione 2: stabile. Tirando la leva vado in posizione 1. Rilasciando torna in posizione 2. Position 2: stable. Pulling the lever go in position 1. Leaving it returns in position 2		<b>412</b>	Ritenuta a scatti nelle posizioni 1-2 posizione centrale e a leva tirata stabili. Groove release in position 1-2. Central position and stabiles in pulled lever.
	<b>223</b>	Posizione 2: stabile. Spingendo la leva vado in posizione 3. Rilasciando torna in posizione 2. Position 2: stable. Pushing the lever go in position 2. Leaving it returns in position 2.		<b>5</b>	Ritenuta a scatti in posizione 3 a leva spinta. Posizione centrale 2 stabile. Posizione 1 con leva tirata con ritorno a molla in posizione 2. Groove release in position 3 in pushed lever. Central position N° 2 stable. Position 1 with pulled lever with spring return in position 2.
	<b>213/B</b>	Posizione 1: stabile. Leva normalmente fuori. Spingendo la leva vado in posizione 3 transitorio aperto = 213/B-C - transitorio chiuso = 213/B-D Position 1: stable. Levere normally out. Pushing the lever go in position 3 transient open: 213/B-C - transien closed: 213/B-D		<b>6</b>	Azionamento con servocomando pneumatico posizione 2 stabile. Posizioni estreme 1-3 con ritorno al centro. Operating with pneumatic serve control. Position 2 stable. Ex-trem positions 1-3 with return in the center.
	<b>212/B</b>	Posizione 1: stabile. Leva normalmente fuori. Spingendo la leva vado in posizione 2. Rilasciando torna in posizione 1. Position 1: stable. Lever normally out pushing the lever go in position 2 leaving it returns in position 1.		<b>7</b>	Ritenuta a scatti nelle 4 posizioni. È possibile solo con cursore di tipo G. Groove release in the four positions. It is possible only with shaft pilot type G.
	<b>223/B</b>	Posizione 3: stabile. Leva normalmente dentro. Tirando la leva vado in posizione 2. Rilasciando torna in posizione 3. Position 3: stable. Lever normally in. Pulling the lever go in position 2. Leaving it returns in position 3.		<b>8</b>	Azionamento con servocomando oleodinamico. Posizione 2 stabile. Posizioni 1-3 con ritorno a molla in posizione 2 (senza leva di azionamento). Operating with pneumatic serve control. Position 2 stable. Positions 1-3 with spring return in position 2 (without lever of operation).
	<b>3</b>	Ritenuta a scatti nelle 3 posizioni. Groove release in three position.		<b>9</b>	Ritenuta a scatti in posizione 1 a leva tirata. Posizione centrale 2 stabile. Posizione 3 a leva spinta con ritorno a molla al centro. Groove release in position 1 lever pulled. Central position 2 stable. Position 3 lever pushed with spring return in the center.



# MONOBLOCK VALVES



## COMPLETE CODE



**IF NOT SPECIFIED THE RELIEF VALVE IS SET TO 175 BAR**

**IF REQUIRED THE SPECIFIC SET OF PRESSURE WRITE : MB25-1-A1-T250**

**IF REQUIRED SURFACE TREATMENT OF WHITE ZINC WRITE :MB25-1-A1-YP**

**IF REQUIRED SPECIAL THREADS WRITE : MB25-1-12 MEANS P-A-B-T-1/2”BSP**

**IF REQUIRED INLET ON THE RIGHT WRITE : MB25-1-A1-DX**

# MB/31

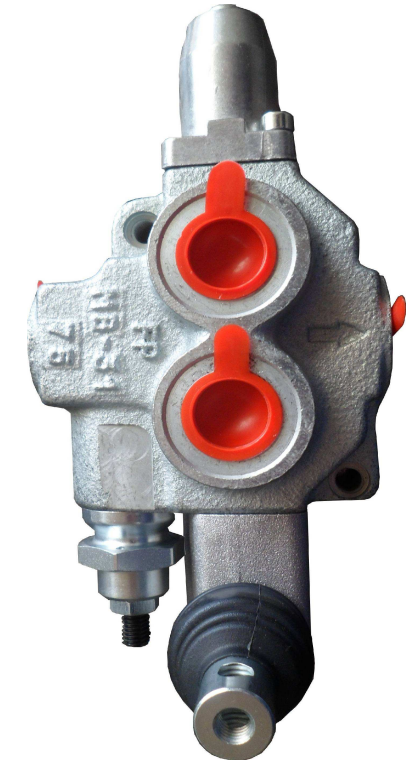
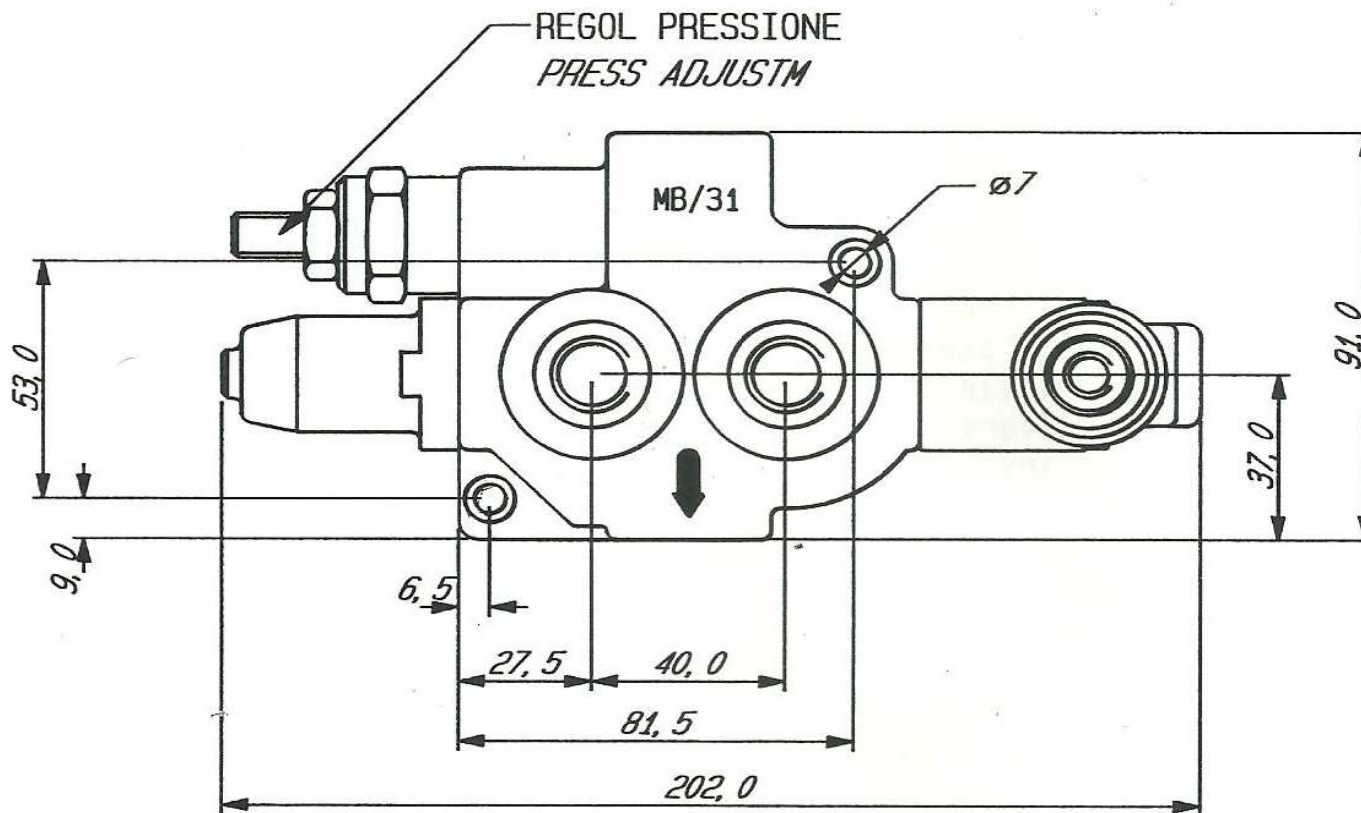
# MONOBLOCK VALVES



## MB31-1-A1

<b>MAX FLOW</b>	<b>60 LIT/MIN</b>
<b>MAX PRESSURE</b>	<b>350 BAR</b>

ATTACCHI	STANDARD	OPTIONAL
P	3/8 BSP	1/2 BSP
A-B	3/8 BSP	1/2 BSP
T	3/8 BSP	1/2 BSP



LEVA DI COMANDO STANDARD L= 150 mm  
STANDARD HANDLE LENGTH = 150 mm

PESO KG 1,8

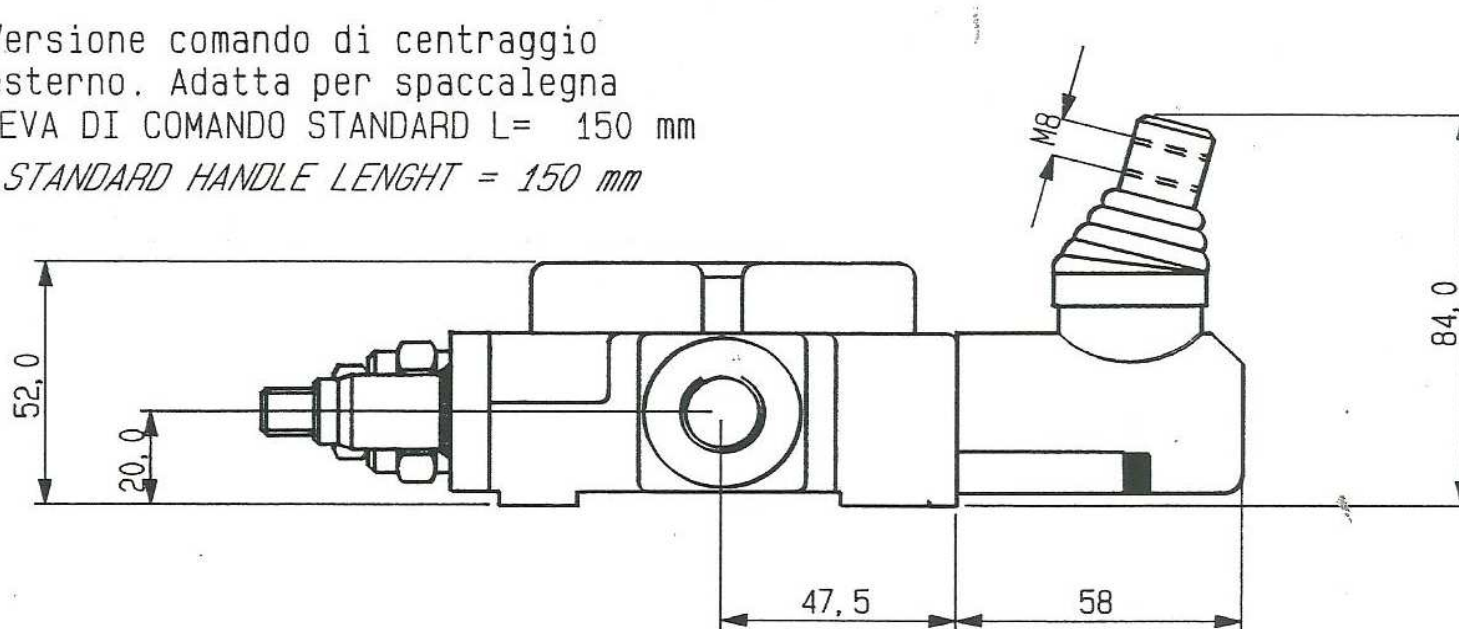
VERSIONE STANDARD CON ENTRATA A SINISTRA  
A RICHIESTA ENTRATA DESTRA (VEDI DISEGNO)

# MB/31

# MONOBLOCK VALVES

## MB31-1-A213/B

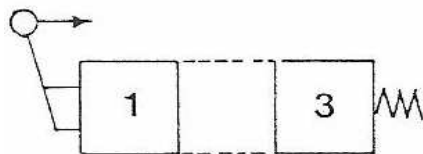
Versione comando di centraggio esterno. Adatta per spaccalegna  
LEVA DI COMANDO STANDARD L= 150 mm  
STANDARD HANDLE LENGHT = 150 mm



ATTACCHI	STANDARD	OPTIONAL
P	3/8 BSP	1/2 BSP
A-B	3/8 BSP	1/2 BSP
T	3/8 BSP	1/2 BSP

PESO KG 1,8

WEIGHT 1.8 KG



### 213/B

Posizione 1: stabile. Leva normalmente fuori. Spingendo la leva vado in posizione 3 transitorio aperto = 213/B-C - transitorio chiuso = 213/B-D

Position 1: stable. Levere normally out. Pushing the lever go in position 3 transient open: 213/B-C - transien closed: 213/B-D



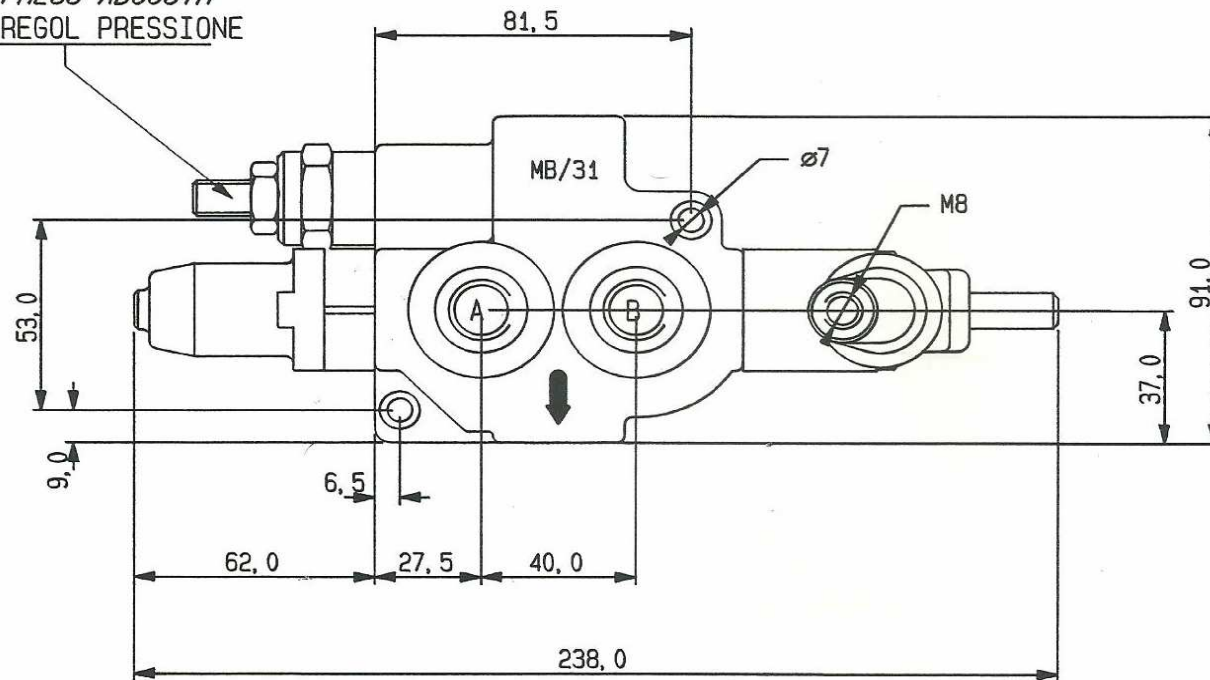
# MB/31

# MONOBLOCK VALVES



## MB31-1-A213-DCSP

PRESS ADJUSTM  
REGOL PRESSIONE



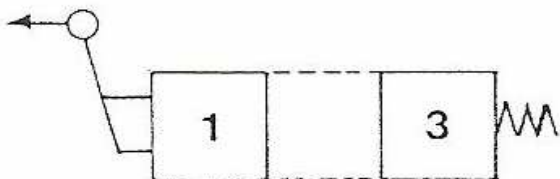
ATTACCHI	STANDARD	OPTIONAL
P	3/8 BSP	1/2 BSP
A-B	3/8 BSP	1/2 BSP
T	3/8 BSP	1/2 BSP



PESO KG 1,8

WEIGHT 1.8 KG

LEVA DI COMANDO STANDARD L= 150 mm  
STANDARD HANDLE LENGTH = 150 mm



# 213

Posizione 3: stabile. Leva normalmente rientrata tirando la leva vado in posizione 1. Transitorio aperto = 213-C - transitorio chiuso = 213-D.

Position 3: stable. Lever normally reentered pulling the lever go in position 1. Transient open = 213-C - Transien closed = 213-D



# MB/31

# MONOBLOCK VALVES



## MB31-1-A213/B-ECO-H15

P-T-A-B da 3/8" codice 181374

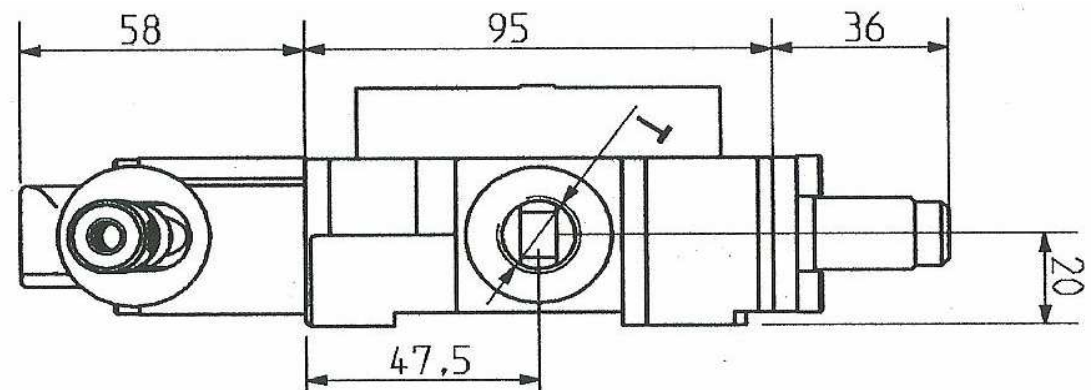
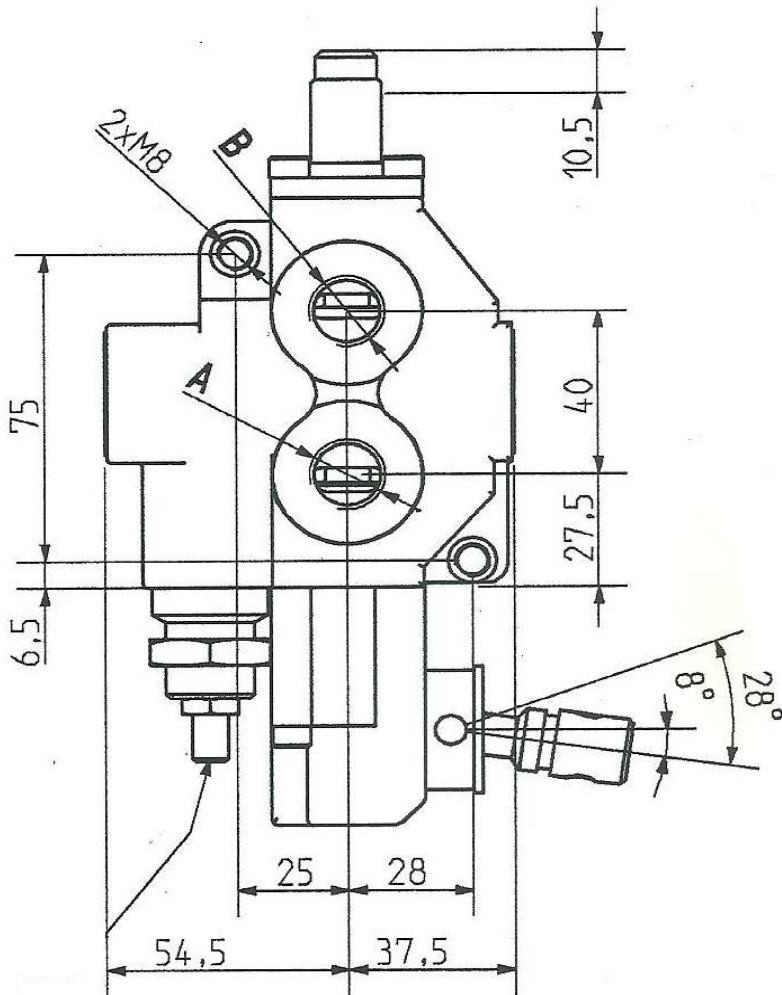
P-T-A-B da 1/2" codice 181376

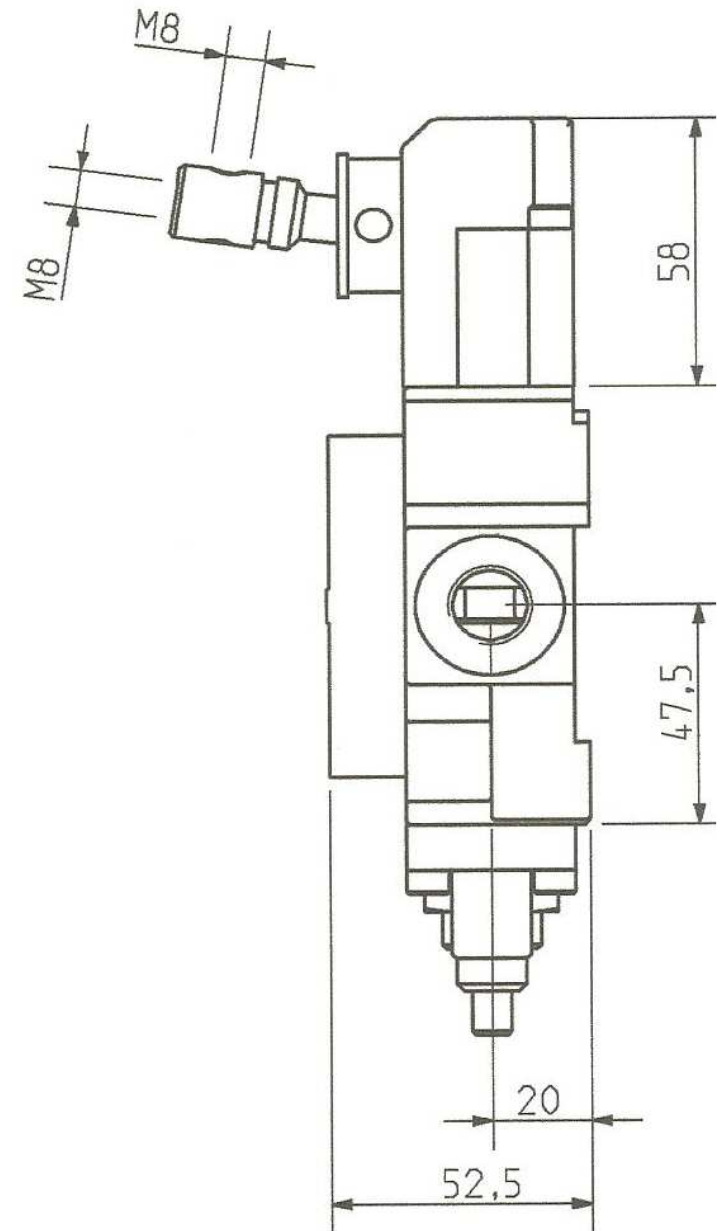
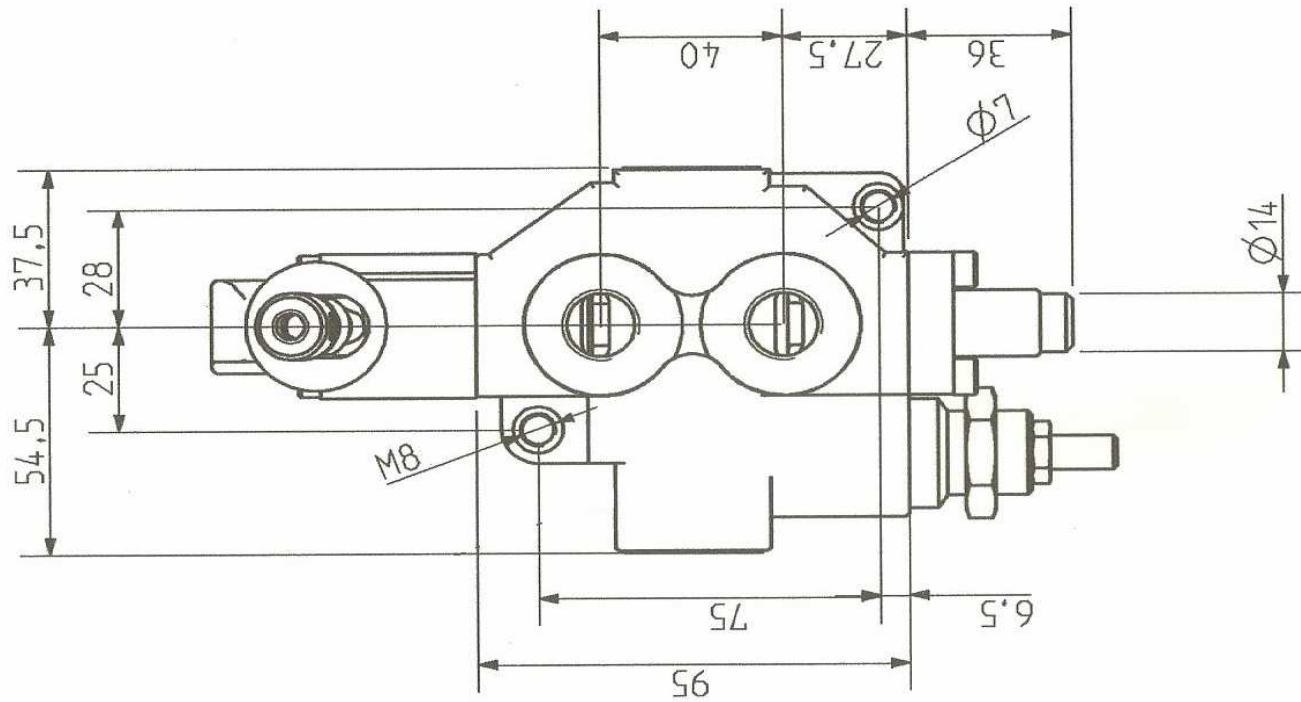
LEVA DI COMANDO STANDARD L= 150 mm  
STANDARD HANDLE LENGHT = 150 mm

PESO KG 1,8

### FILETTATURE STANDARD

ATTACCHI	STANDARD	OPTIONAL
P	3/8 BSP	1/2 BSP
A-B	3/8 BSP	1/2 BSP
T	3/8 BSP	1/2 BSP





**MB/31---A---213/B---ECO---00---00---00**

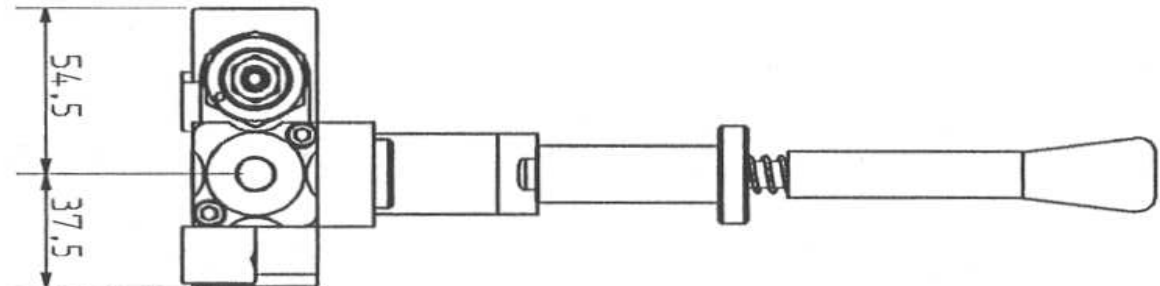
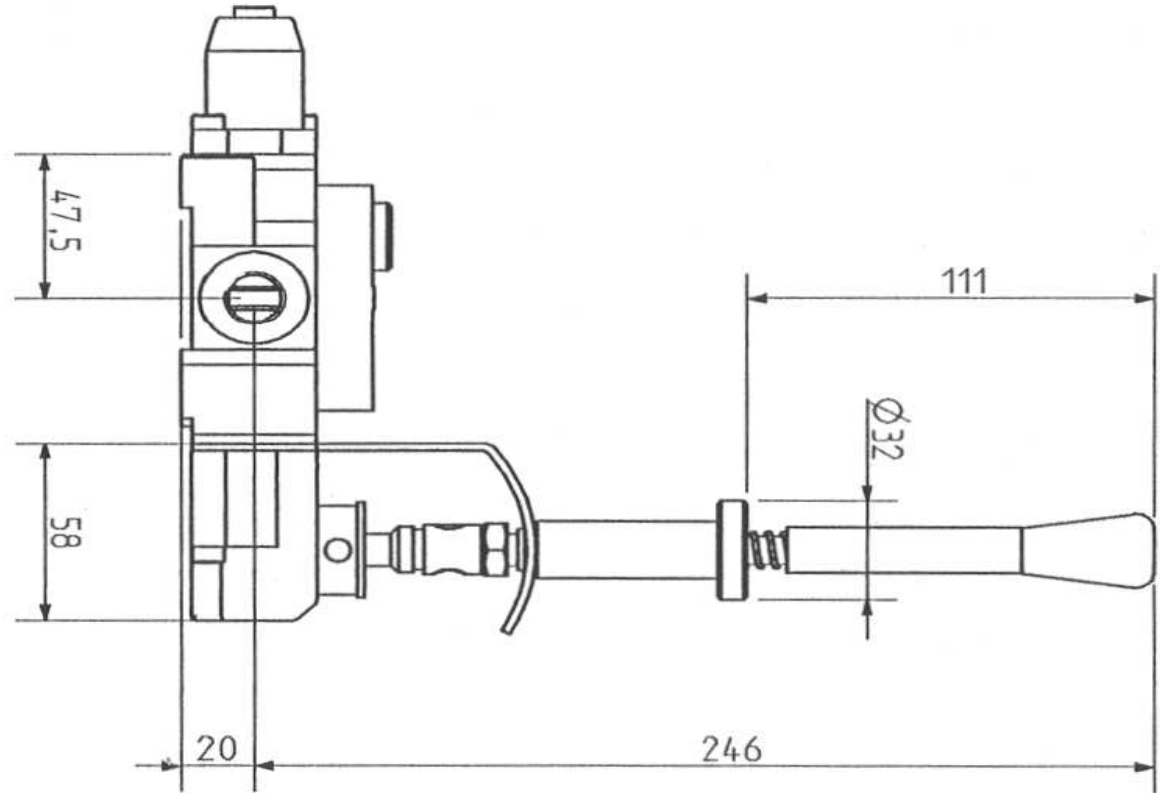
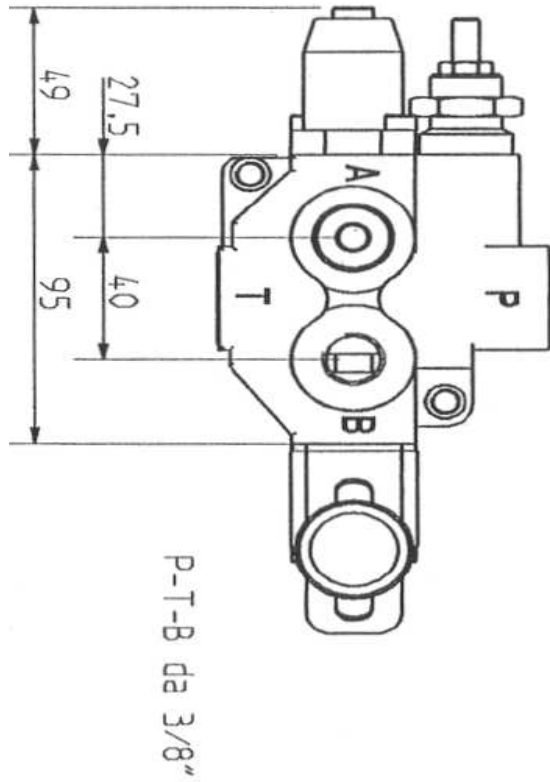
- Tipo
- Tipo di stelo
- Azionamento
- 00= Sinistro  
DX=Destro
- Trattam superfici:  
00=Grezzo  
YP=Zincato Nikel
- Attacchi  
00=3/8 BSP  
12=1/2 BSP

MB/31

# MONOBLOCK VALVES



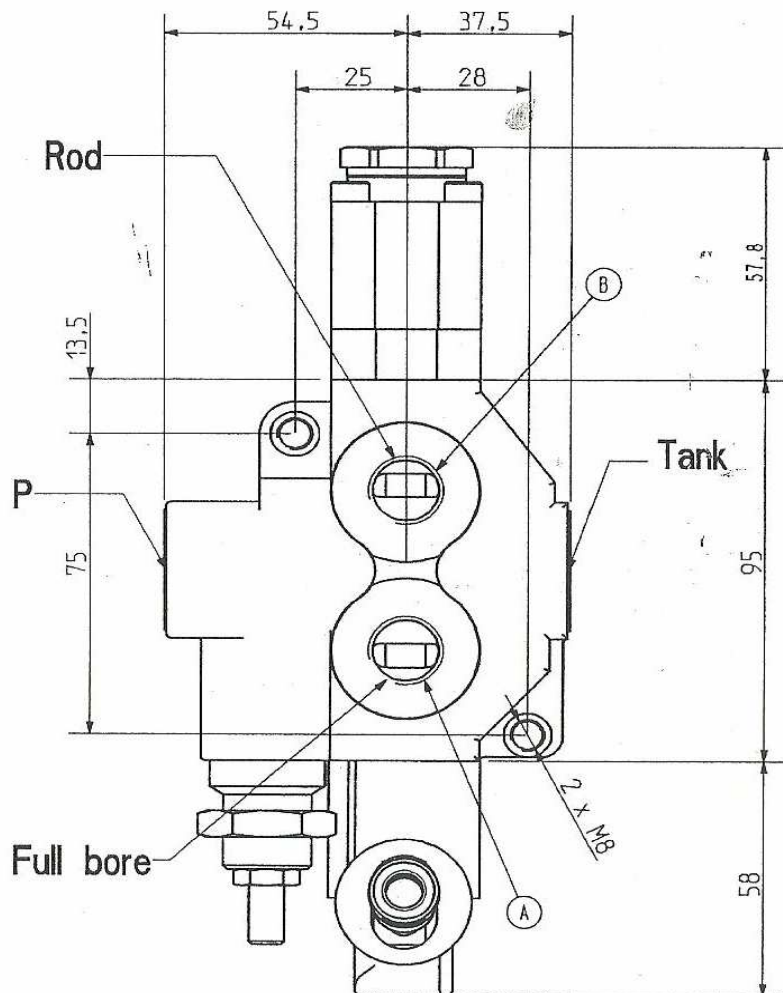
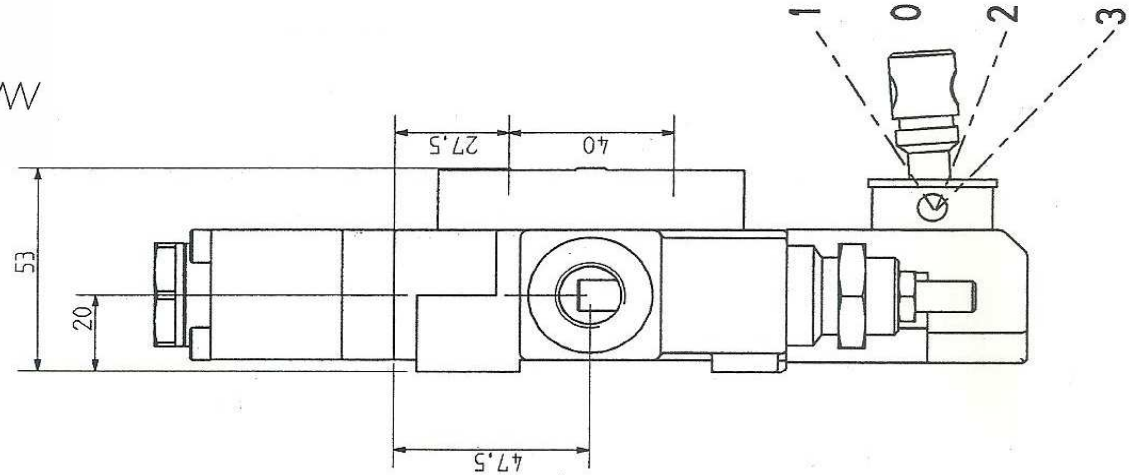
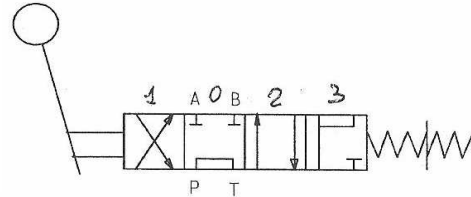
## MB31-1-LNI-EMERGENCY LEVER





## MB31-1-DUAL SPEED RIGENERATIVE-R2V-CENTRAL POSITION

PESO KG 1,8



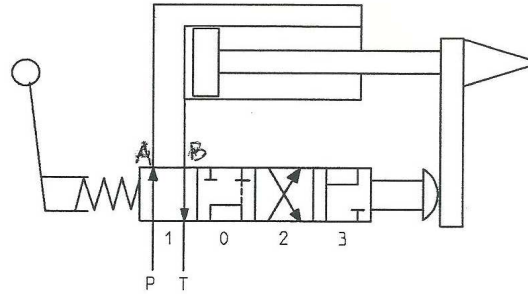
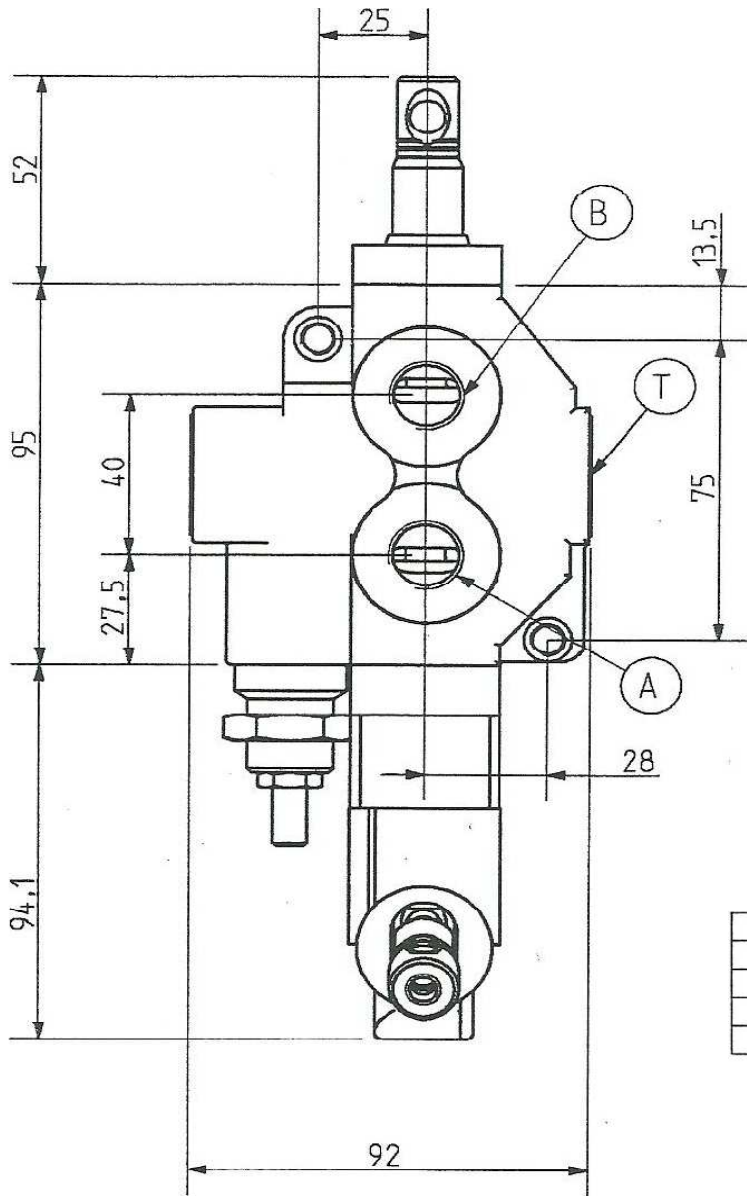
### MB31-1-R2V-PC

Pos	Function
1	P → Rod-Full bore → Tank
0	Rod closed- Full bore partially open to Tank
2	P → Full bore-Rod → Tank
3	P → Rod and Full bore

Available too with inlet right .. Put DX after complet code  
 All ports are 1/2 BSP  
 Surface treatment : white zinc plated (std)  
 Standard setting of relief valve : 175 bar  
 Code of this valve is : MB/31-R2V-PC-YP-12-T175-(DX)  
 Complet with handle and knob M10 x 190-  
 Other Lenght (140-220-260) on request  
 On request relief valve is available too with plumbed

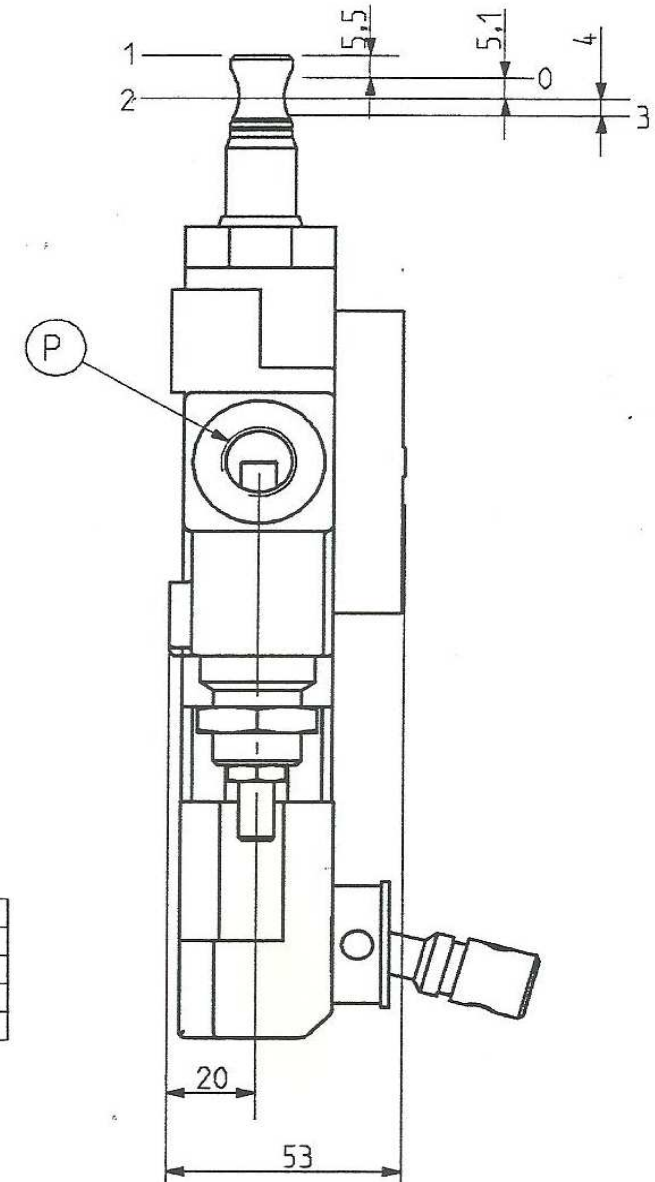


## MB31-1-DUAL SPEED- RIGENERATIVE-R2V-A213B

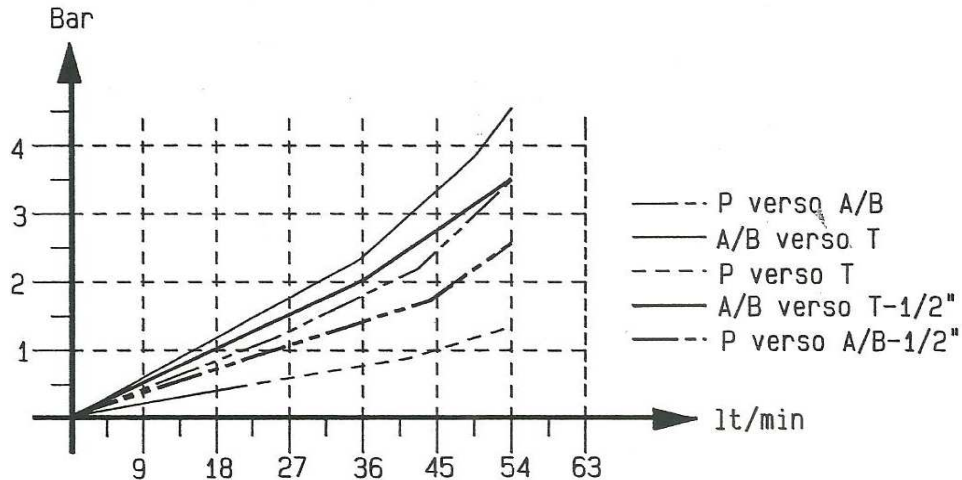


PESO KG 1,8

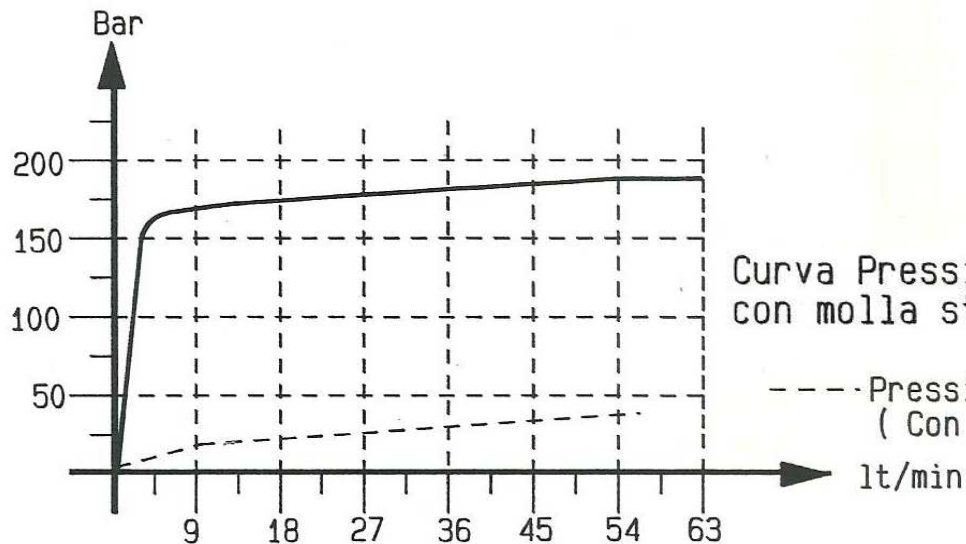
ATTACCHI	STANDARD	OPTIONAL
P	3/8 BSP	1/2 BSP
A-B	3/8 BSP	1/2 BSP
T	3/8 BSP	1/2 BSP



## DROP OF PRESSURE MB31-1 AND CURVES FLOW/PRESSURE



CONDIZIONI DI PROVA  
 1-Temperatura ambiente= 18  
 2-Temperatura fluido= 50  
 3-Viscosità fluido= 3,5 E



Curva Pressione/Portata per valvola di massima pressione diretta con molla standard adatta per pressioni da 80 a 210 bar

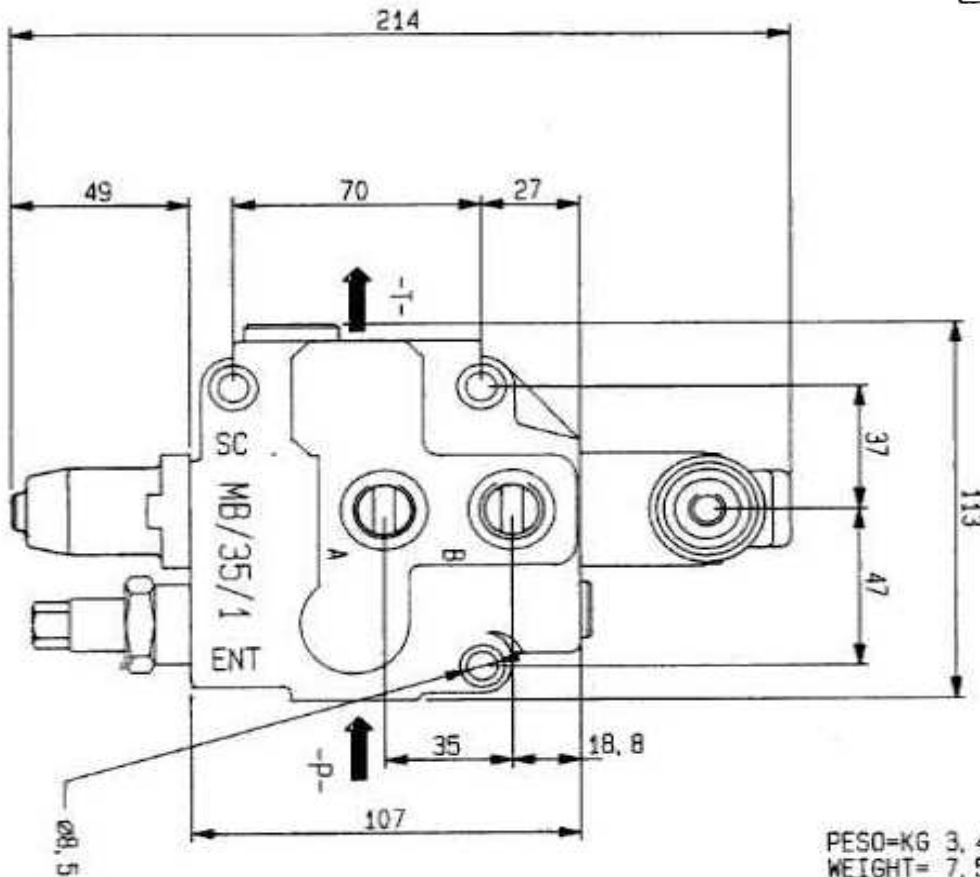
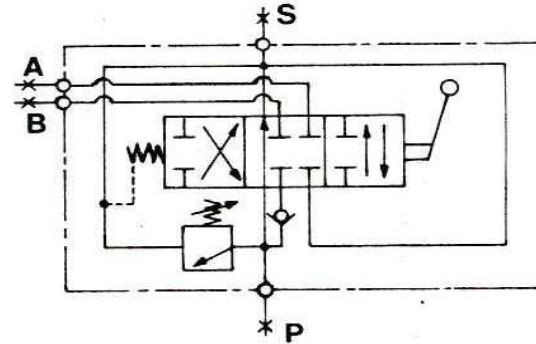


# MB/35-1

# MONOBLOCK VALVES

MAX FLOW	60 LIT/MIN
MAX PRESSURE	350 BAR
BACK PRESSURE	80 BAR
LEAKAGE TO 100 BAR	1CC/MIN
WEIGHT	KG. 3,4
CONFIGURATION	PARALLEL

## STANDARD CONFIGURATION



PESO=KG 3,4  
WEIGHT= 7,5 POUNDS

## STANDARD THREADS BSP GAS

Attacco	Dimens.	Dimens Spec
P	3/8"	1/2"
P sup	3/8"	1/2"
A/B	3/8"	1/2"
T	1/2"	1/2"
T sup	1/2"	1/2"



# MB/35-3

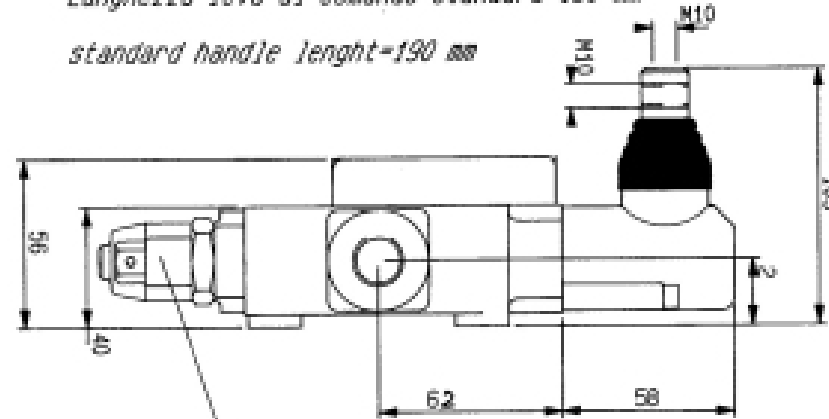
# MONOBLOCK VALVES



<b>MAX FLOW</b>	<b>60 LIT/MIN</b>
<b>MAX PRESSURE</b>	<b>350 BAR</b>
<b>BACK PRESSURE</b>	<b>80 BAR</b>
<b>LEAKAGE TO 100 BAR</b>	<b>2CC/MIN</b>
<b>WEIGHT</b>	<b>KG. 6,4</b>
<b>CONFIGURATION</b>	<b>PARALLEL</b>

Lunghezza leva di comando standard=190 mm

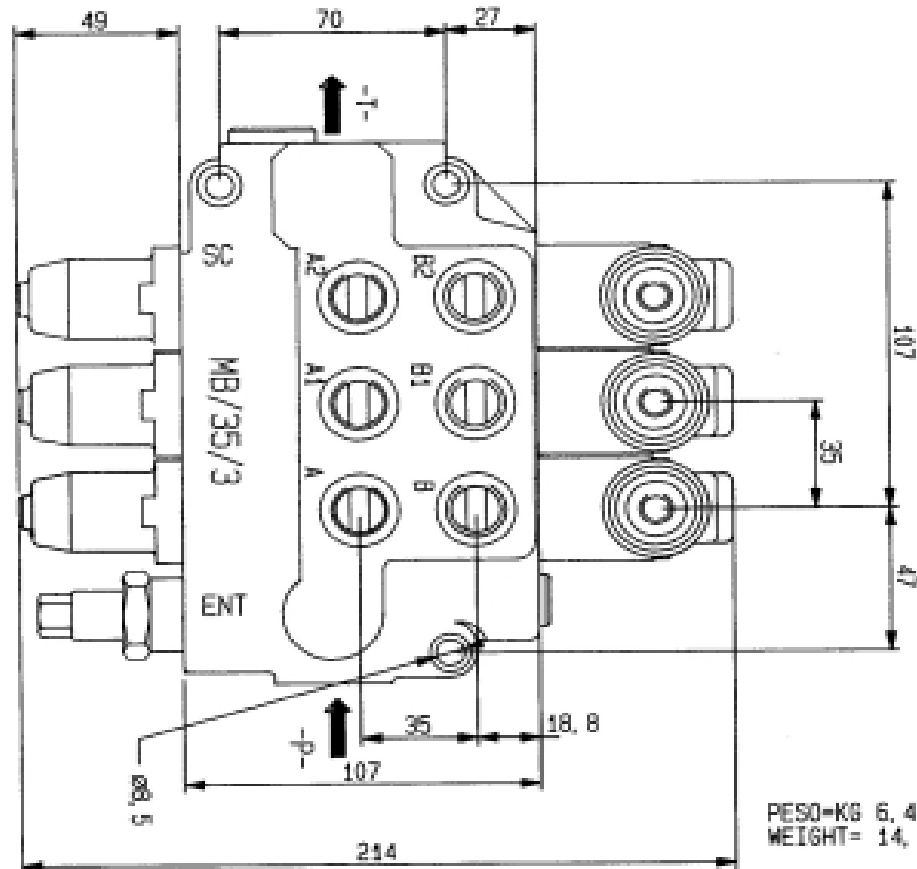
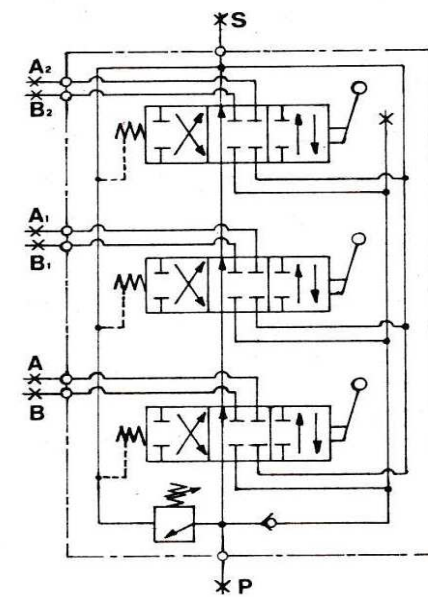
standard handle lenght=190 mm



Regolazione pressione  
Pressure adjustment

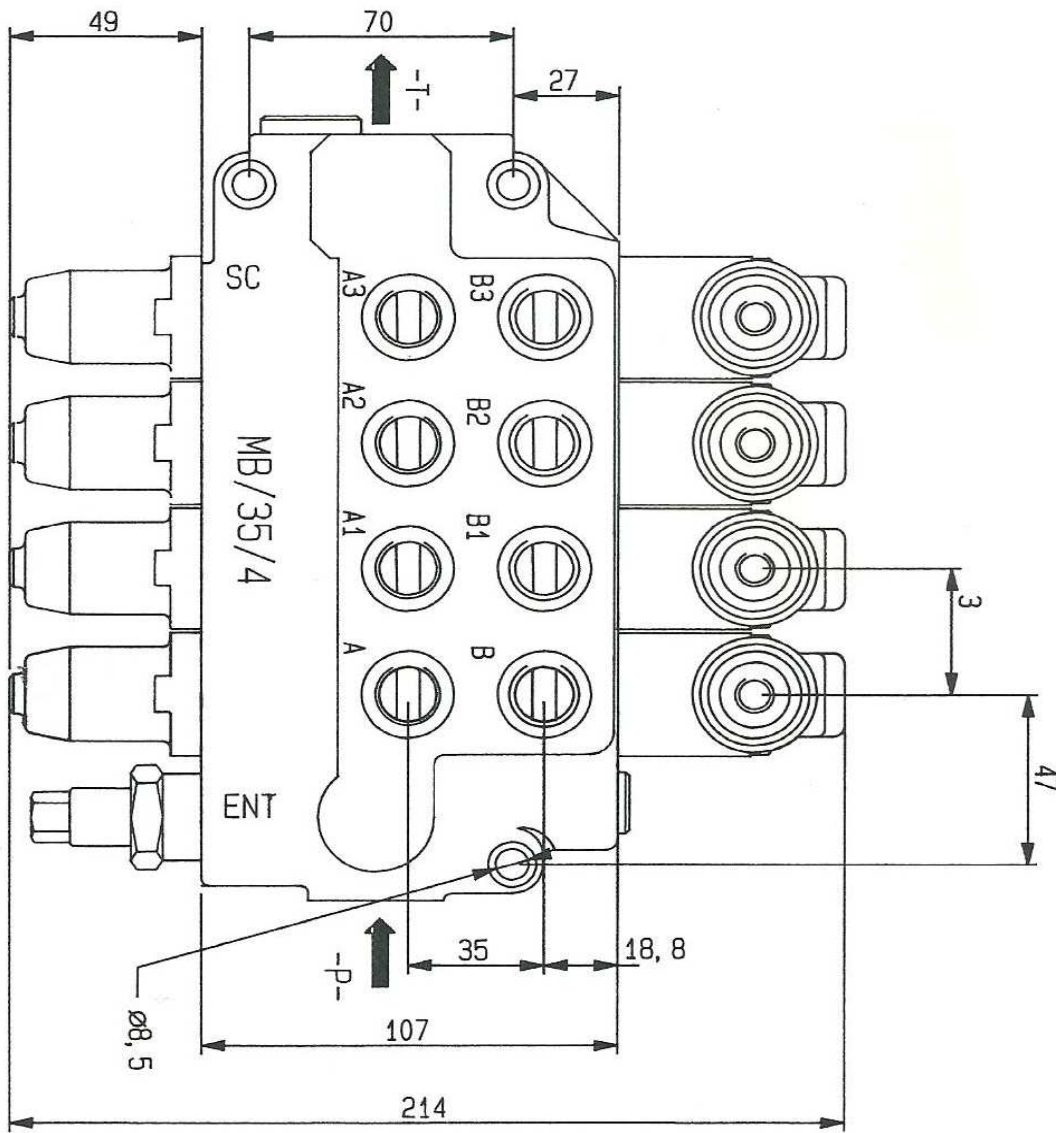
Attacchi - Ports  
P-A-B- 3/8" BSP STANDARD  
P-A-B- 1/2" BSP SU RICHIESTA /ON REQUEST  
T 1/2" TUTTI I TIPI/ALL TYPE

### STANDARD CONFIGURATION



PESO=KG 6,4  
WEIGHT= 14,1 POUNDS

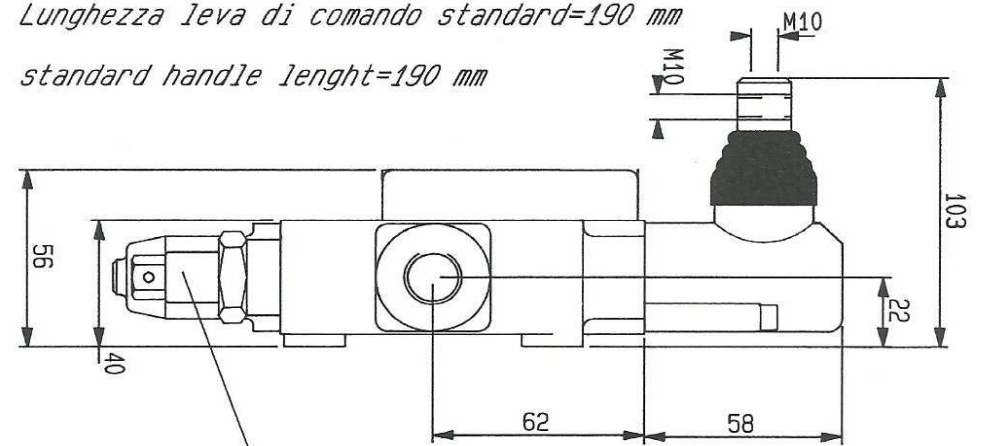




<b>MAX FLOW</b>	<b>60 LIT/MIN</b>
<b>MAX PRESSURE</b>	<b>350 BAR</b>
<b>BACK PRESSURE</b>	<b>80 BAR</b>
<b>LEAKAGE TO 100 BAR</b>	<b>2CC/MIN</b>
<b>WEIGHT</b>	<b>KG. 7,8</b>
<b>CONFIGURATION</b>	<b>PARALLEL</b>

Attacco	Dimens.	Dimens Spec
P	3/8"	1/2"
P sup	3/8"	1/2"
A/B	3/8"	1/2"
T	1/2"	1/2"
T sup	1/2"	1/2"

Lunghezza leva di comando standard=190 mm  
 standard handle length=190 mm



Regolazione pressione  
 Pressure adjustment

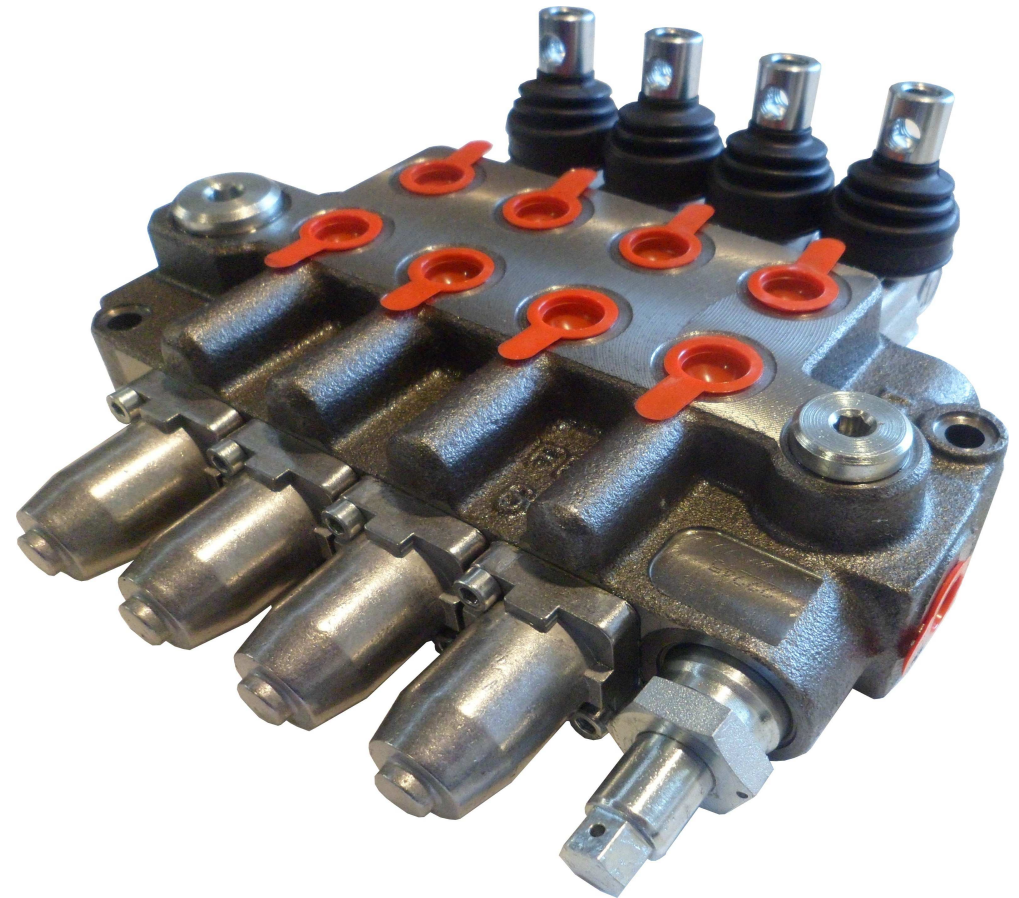
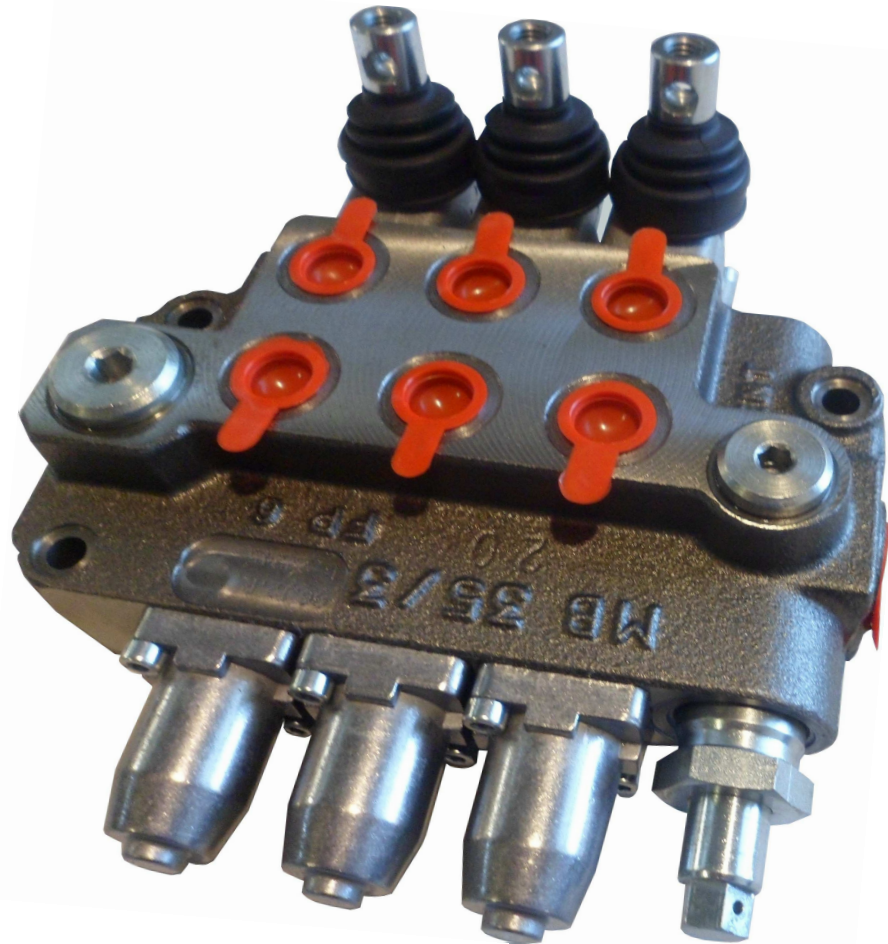
**MB/35**

**MONOBLOCK VALVES**

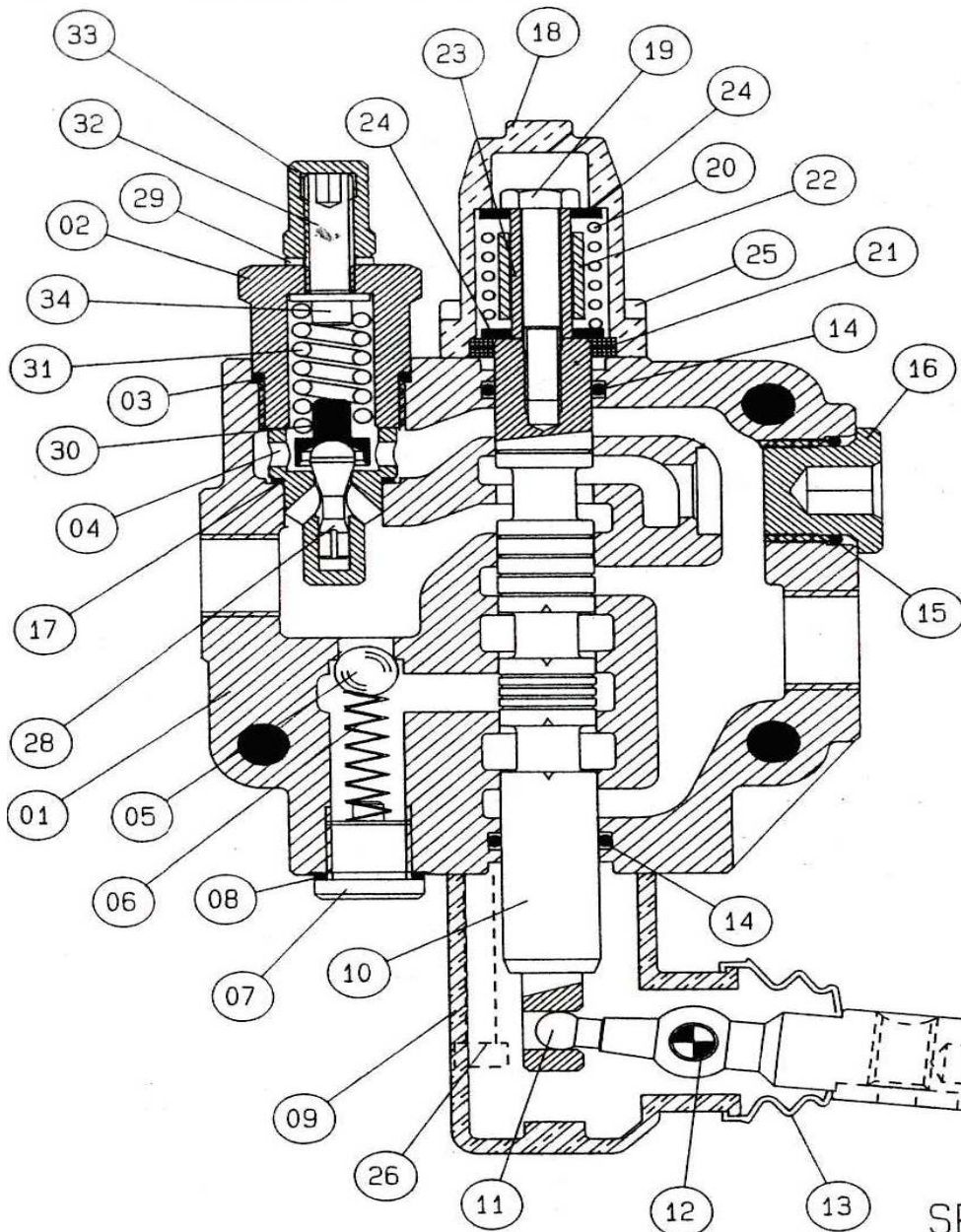


**MB35/3-A1-A1-A1 COD.013000**

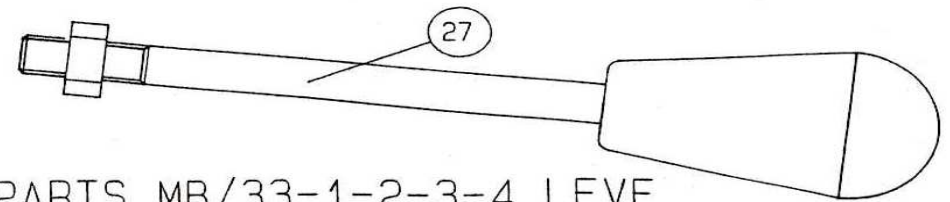
**MB35/4-A1-A1-A1-A1 COD.014000**







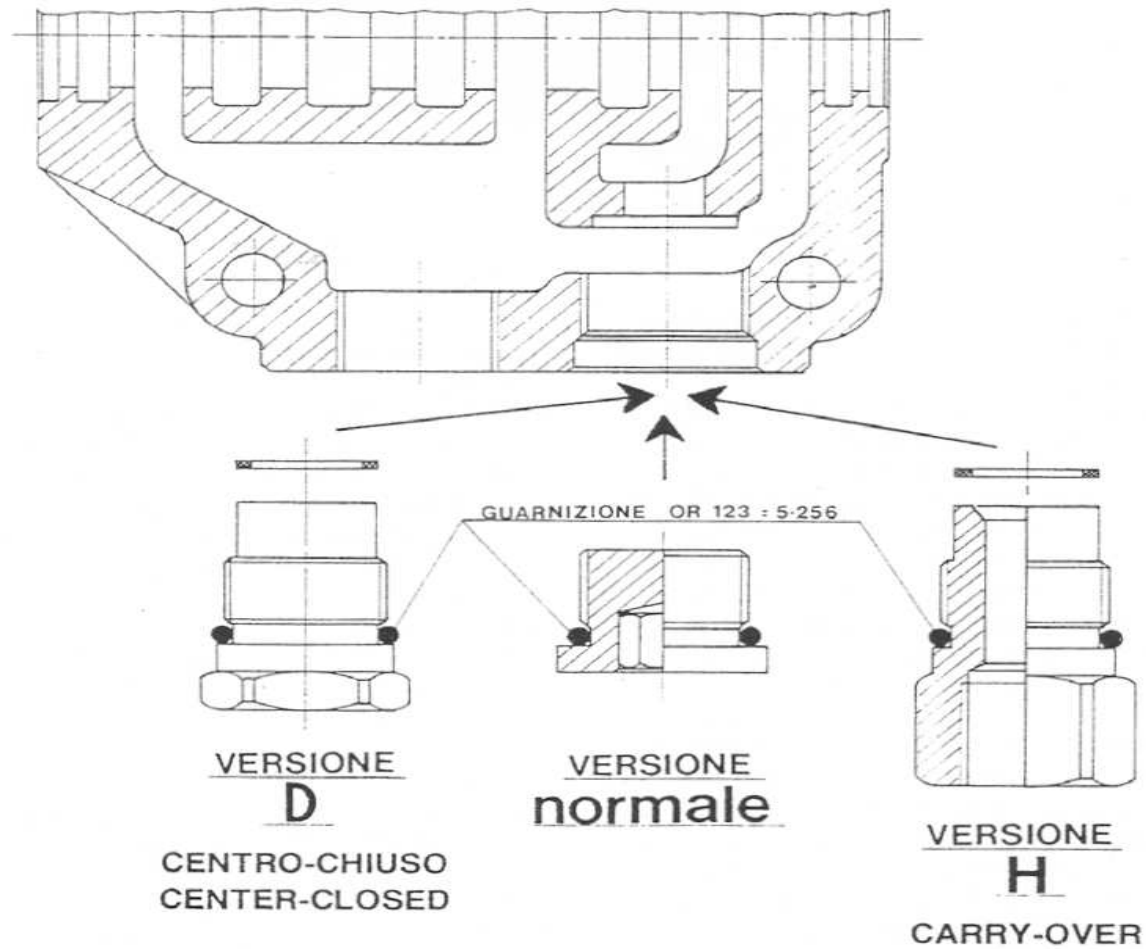
POS	NOME/NAME	CODICE	1 LEV	2 LEV	3 LEV	4 LEV
01	CORPO/BODY		01119	01098	01099	01140
02	CAPPELOTTO VALV MAX.	01149	1	1	1	1
03	OR 128 (20, 29X2, 62)	60287	1	1	1	1
04	SEDE VALV MAX	01191	1	1	1	1
05	SFERA 7/16 BALL	65010	1	1	1	1
06	MOLLA VNR SPRING	M0101	1	1	1	1
07	TAPPO VNR PLUG	01015	1	1	1	1
08	RONDELLA 14X18 WASHER	55006	1	1	1	1
09	SCATOLA LEVA HANDLE BOX	010391	1	2	3	4
10	STELO SPOOL-A-	01002	1	2	3	4
11	SNODO LEVA M10 (OPTION)	01003				
11	SNODO LEVA M8 (STANDARD)	01147	1	2	3	4
12	SPINA PIN	01142	1	2	3	4
13	SOFFIETTO RUBBER COVER	R510	1	2	3	4
14	OR 121 (15, 88X2, 62)	60283	2	4	6	8
15	OR 123 (17, 96X2, 62)	60285	1	1	1	1
16	TAPPO 1/2"-PLUG	07007	1	1	1	1
17	RONDELLA 16X21 WASHER	55016	1	1	1	1
18	CAPPELOTTO COVER	010111	1	2	3	4
19	VITE 6X40 SCREW	50022	1	2	3	4
20	MOLLA STELO SPRING SPOOL	M0471	1	2	3	4
21	ANELLO DIST SPACERS	01197	2	4	6	8
22	DISTANZIALE SPACERS	01013	1	2	3	4
23	TUBO FISSO	01008	1	2	3	4
24	ROND. MOLLA WASHER SPRING	01007	2	4	6	8
25	VITE TCE 5X14 SCREW	50015	2	4	6	8
26	VITE TCE 5X40 SCREW	50014	2	4	6	8
27	ASTA LEVA M8X150 (STAND)	01148	1	2	3	4
27	ASTA LEVA M10X190 (OPTION)	010371				
28	SPILLO VALV MAX	01192	1	1	1	1
29	RONDELLA TENUTA	55029	1	1	1	1
30	PREMIMOLLA	01190	1	1	1	1
31	MOLLA VALV MAX	M085	1	1	1	1
32	GRANO REG MBX20	70003	1	1	1	1
33	DADO CIECO M8	65057	1	1	1	1
34	PREMIMOLLA SUP	01154	1	1	1	1



SPARE PARTS MB/33-1-2-3-4 LEVE

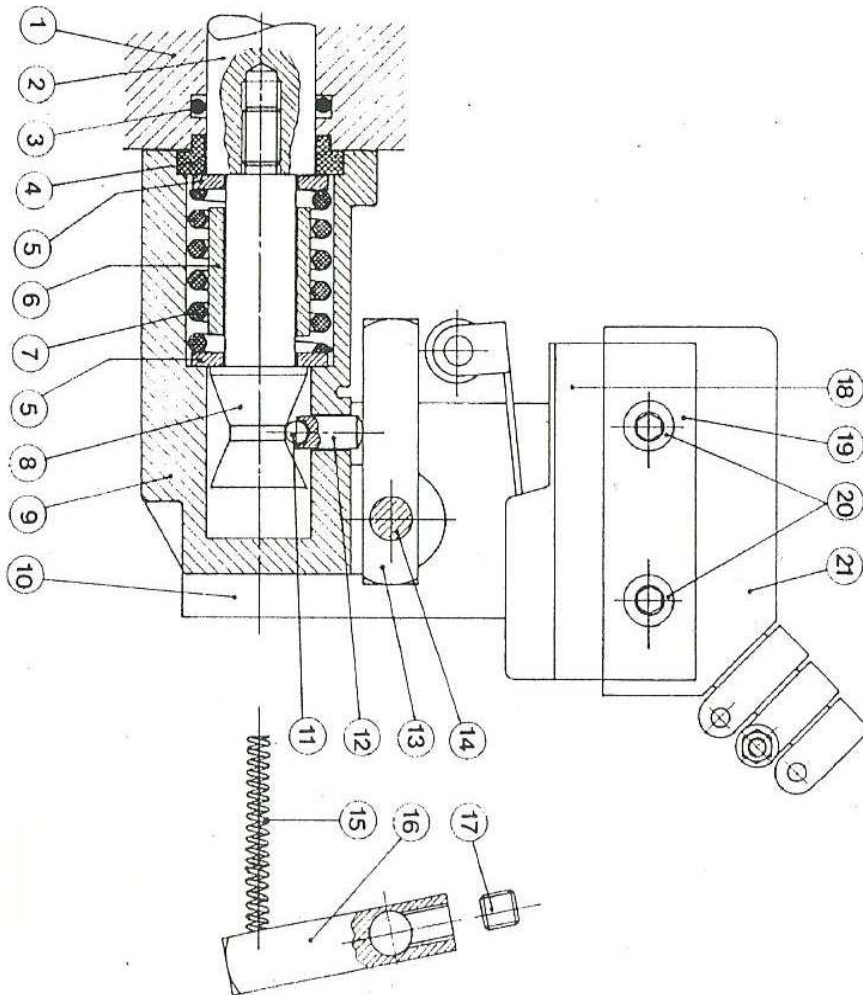


ASSEMBLY CARRY-OVER “H” PLUG AND CLOSED CENTER “D” PLUG FOR MB/35



MASSIMO MOMENTO  
TORCENTE DI CHIUSURA  
MAXIMUM. COUPLE. = 7<sup>+1</sup> KG. MT (70<sup>+10</sup> Nm. x mt)

## SPARE PARTS MICRO FOR MB/35 E MB/25



PART.	DENOMINAZIONE	QUANTITÀ
1	Corpo monoblocco	1
2	Stelo	1
3	Guarnizione OR 121=OR 5-617	1
4	Anello di centramento	1
5	Rondella reggi molla	2
6	Tubetto distanziale	1
7	Molla richiamo stelo	1
8	Perno camme	1
9	Cappello	1
10	Piastra porta micro	1
11	Sfera 1/8"	1
12	Pistoncino porta sfera	1
13	Asta comando micro	1
14	Perno porta aste	1
15	Molla richiamo perno	1
16	Asta porta molla	1
17	Grano bloccaggio	1
18	Microcontatto	1
19	Piastrina	1
20	Viti T.C.E. 4x25	2
21	Cuffia protezione micro	1

### CARATTERISTICHE ELETTRICHE MICRO MAMF ELETTRICAL FEATURES MICROSWITCH MAMF

Tensione Voltage	Carico * resistivo Resistive load	Carico ** induttivo Inductive load	Carico motore - Motor load	
			N.C.	NA NO
125 Vca 125 VAC	15 A	10 A	3 A	1,5 A
250 Vca 250 VAC	10 A	6 A	2 A	1 A
125 Vcc 125 VDC	0,4 A	0,05 A	0,05 A	0,05 A

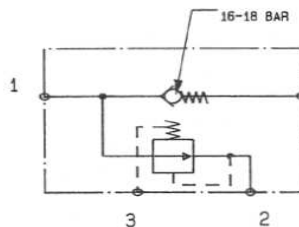
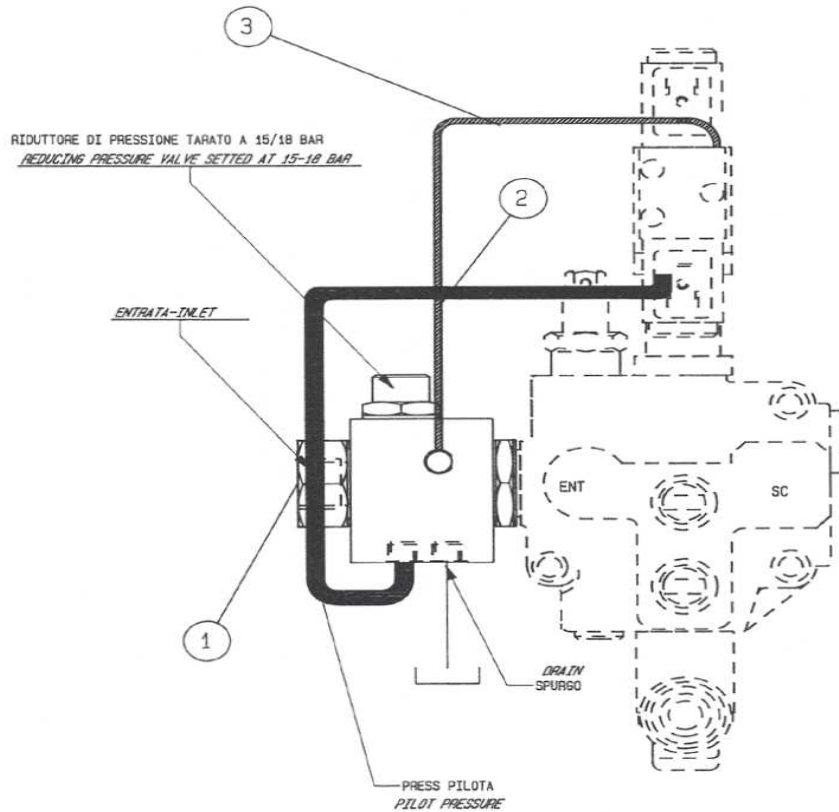
# ELETRO-HYDRAULIC PILOTATED CONTROL 66



## TYPE GAE IN THE INLET

Gruppo valvola direzionale ad 1 leva con comando elettro-oleodinamico tipo 66 e con gruppo di alimentazione in entrata del tipo GAE/12

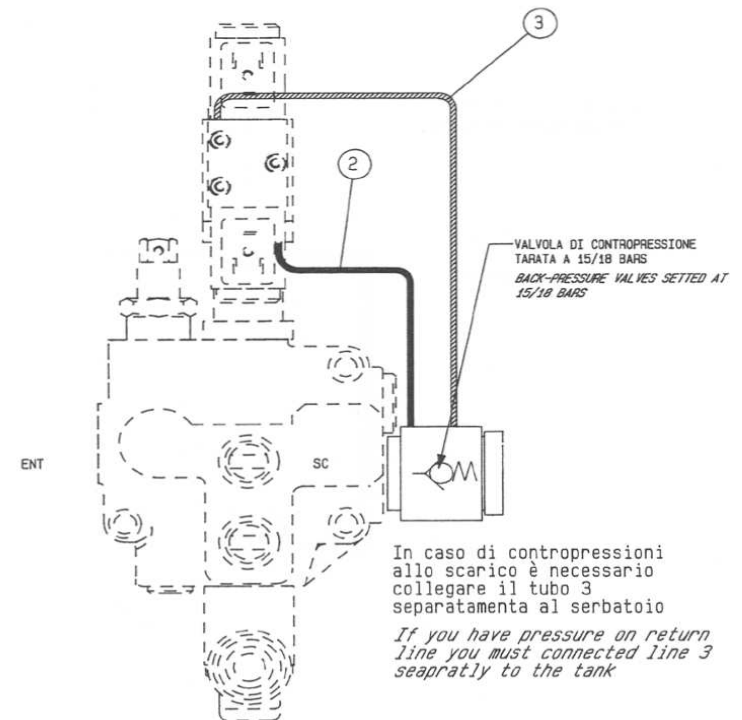
*Lay-out directional valve 1 handle with on-off electro-hydraulic control 66 type and inlet kit feeding GAE/12 type*



## TYPE VCP IN THE OUTLET

Gruppo valvola direzionale ad 1 leva con comando elettro-oleodinamico tipo 66 e con gruppo di alimentazione in scarico del tipo VCP/34

*Lay-out directional valve 1 handle with on-off electro-hydraulic control 66 type and back-pressure valve VCP/34 type*



2=TUBAZIONE DI PILOTAGGIO-PILOT PRESSURE LINE  
3=TUBAZIONE DI DRENAGGIO-DRAIN LINE

In caso di cilindri a semplice effetto verificare sempre che la pressione di discesa del cilindro a vuoto sia superiore alla pressione di taratura della valvola di contropressione. Non usare su distributori con utilizzi a scarico. In questi casi è necessario usare il gruppo GAE/12 ved. foglio 66-001

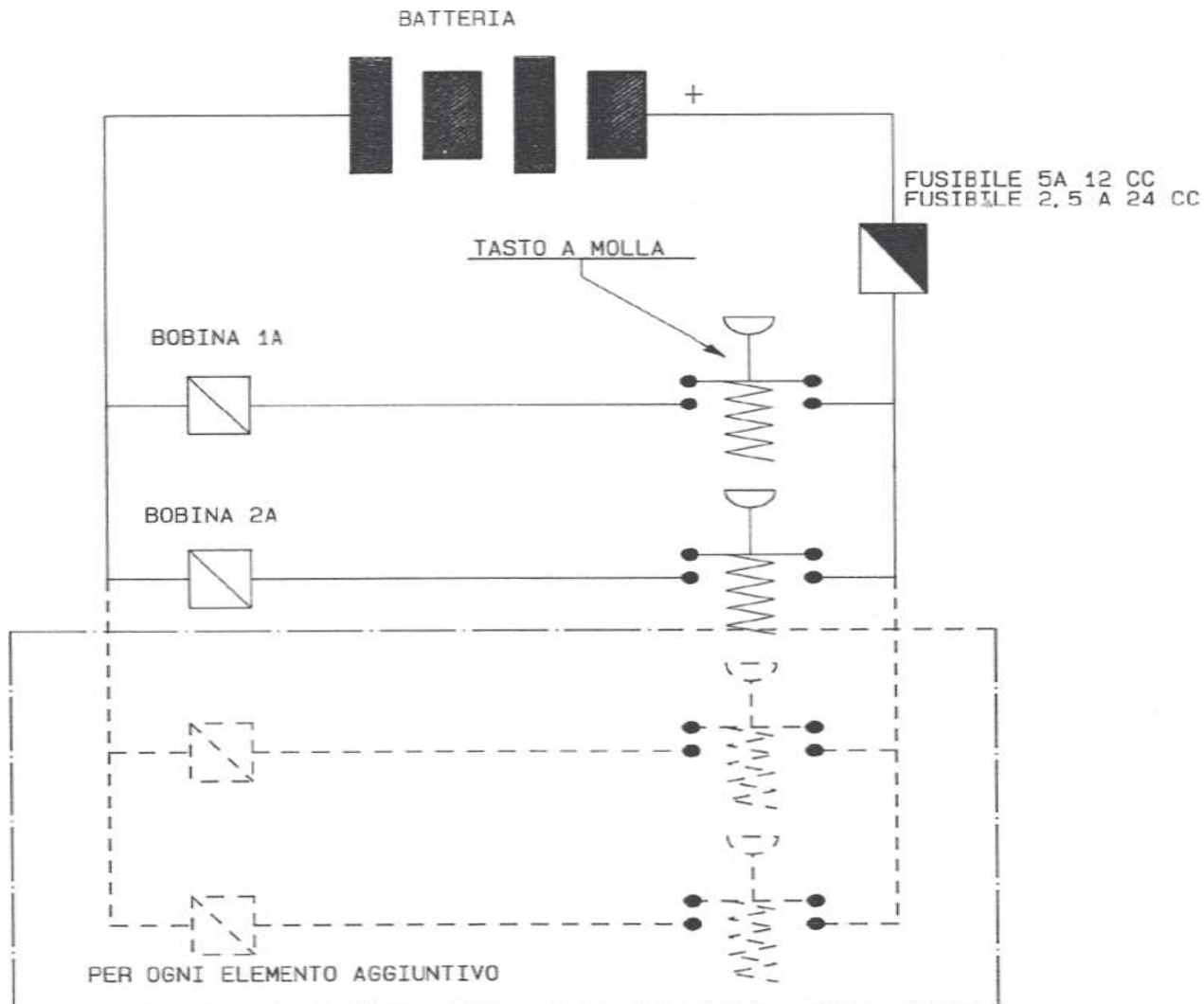
*If you used single acting cylinder you must check that pressure up of cylinder must be higher at back-pressure of check valve. Do not use directional valve with free flow in neutral position. In these cases you must be used feeding valve GAE/12 type see data sheet 66-001*



# ELETO-HYDRAULIC PILOTATED CONTROL 66



## ELETRIC DRAW FOR THE 66 CONTROL ELETO-HYDRAULIC PILOTATED

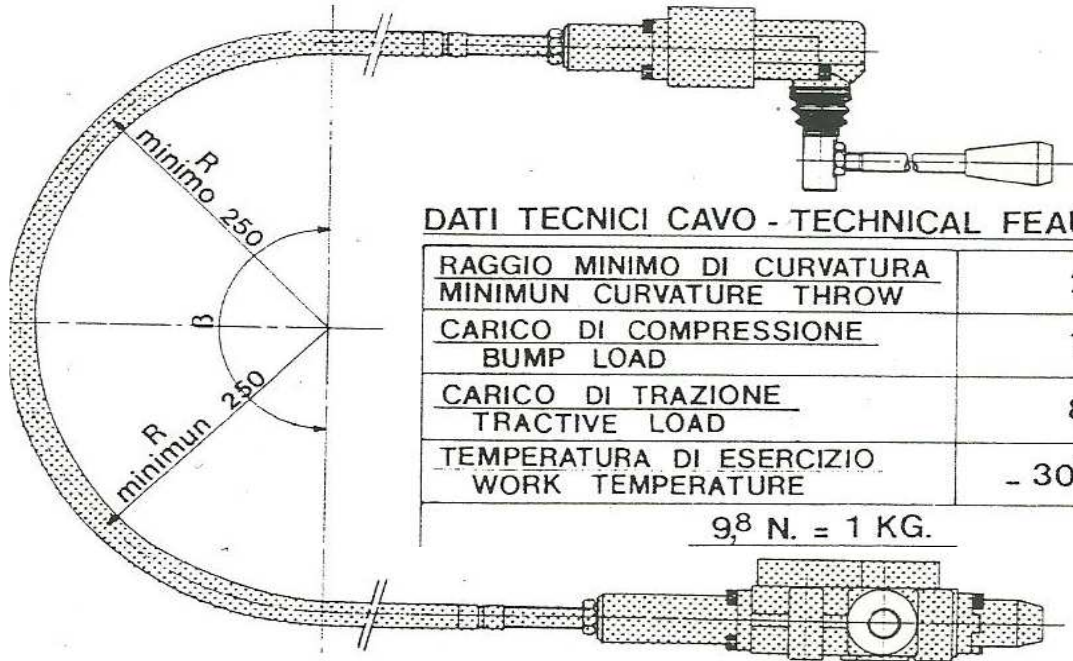


CARATTERISTICHE ELETTRICHE BOBINE

VOLTS	AMPERE	WATTS
12 CC	1,50	18
24 CC	0,75	18

LE BOBINE ELETTRICHE SONO DIMENSIONATE PER FUNZIONAMENTO CON INTERMITTENZA 100%.  
LA TENSIONE DI ESERCIZIO DOVRA' ESSERE CONTENUTA NEL +/- 10 %

## CABLE CONTROL FOR MB/25 E MB/35



DATI TECNICI CAVO - TECHNICAL FEATURE CABLE

RAGGIO MINIMO DI CURVATURA MINIMUM CURVATURE THROW	250 mm.
CARICO DI COMPRESIONE BUMP LOAD	700 N.
CARICO DI TRAZIONE TRACTIVE LOAD	800 N.
TEMPERATURA DI ESERCIZIO WORK TEMPERATURE	- 30° c. + 80° c.

9,8 N. = 1 KG.

**THE SAME FOR MB/25-MB/35-  
MB/31 PAGE N°19**

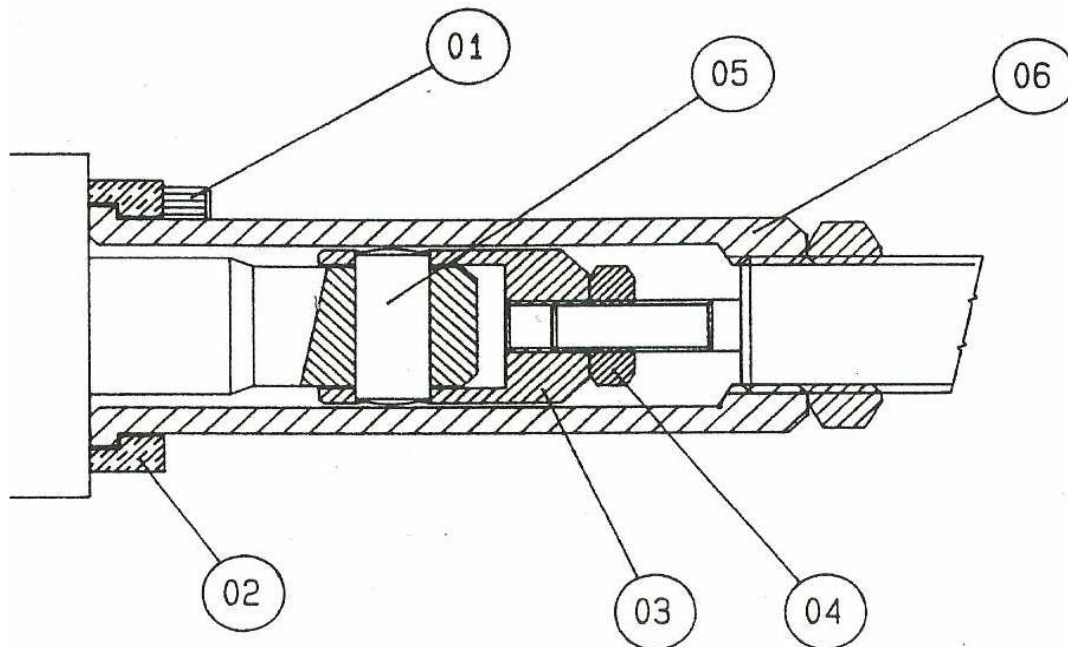
(β)	90°	180°	270°	360°
RENDIMENTO *	0,8	0,7	0,65	0,55
EFFICENCY *				
* CALCOLATO CON CAVO L=3000				
* CALCULATED WITH CABLE L=3000				

## CABLE CONTROL FOR MB/25 MB/31 MB/35

Pos.	Denominazione	Qaunt.	Codice
01	Vite di fissaggio M5X14	2	50-015
02	Flangia di fissaggio	1	01-063
03	Attacco stelo	1	01-103
04	Dado M6	1	65-053
05	Spina di attacco	1	01-069
06	Cappello portacavo	1	01-102

### KIT PCD FOR CABLE CONTROL

### ATTACCO PCD/35



### THE SAME FOR MB/25-MB/31-MB/35





# MONOBLOCK VALVES



## TYPE OF CIRCUIT AVAILABLE

SCHEMA SCHEME	SIGLA CODE	CARATTERISTICHE FEATURES	SCHEMA SCHEME	SIGLA CODE	CARATTERISTICHE FEATURES
	<b>A</b>	Cursore a centro aperto (P→S) in posizione centrale. Utilizzi chiusi. A leva spinta P→A, B→S. A leva tirata P→B, A→S. Shaft pilot open center (P→S) in central position. Cylinder closed. Lever pushed P→A B→S. Lever pulled P→B A→S.		<b>I</b>	Cursore a centro aperto (P→S) in posizione centrale. Utilizzo A chiuso. Utilizzo B a scarico. A leva spinta P→A, B→S. A leva tirata P→B, A→S. Shaft pilot open center (P→S) in central position. Port A closed. Port B at exhaust. Lever pushed P→A B→S. Lever pulled P→B A→S.
	<b>C</b>	Cursore a centro aperto (P→S) in posizione centrale. Utilizzi allo scarico. A leva spinta P→A, B→S. A leva tirata P→B, A→S. Shaft pilot open center (P→S) in central position. Cylinders at the exhaust. Lever pushed P→A B→S, lever pulled P→B A→S.		<b>M</b>	Cursore a centro chiuso. In posizione centrale. Utilizzi allo scarico. A leva spinta P→A, B→S. A leva tirata P→B A→S. Ottenibile anche montando sullo scarico il tappo «D» con cursore tipo «C».
	<b>D</b>	Cursore a centro chiuso (P→) in posizione centrale. Utilizzi chiusi. A leva spinta P→A, B→S. A leva tirata P→B, A→S. Ottenibile anche montando sullo scarico il tappo «D» (tav. 0022) Shaft pilot center closed (P→) in central position. Cylinders closed. Lever pushed P→A B→S lever pulled P→B A→S. It is possible to obtain it also mounting on the exhaust the cap «D» (tav. 0022)		<b>N</b>	Cursore a centro chiuso. In posizione centrale utilizzo B a scarico. Utilizzo A chiuso. A leva spinta P→A, B→S. A leva tirata P→B A→S. Ottenibile anche montando sullo scarico il tappo «D» con cursore tipo «B».
	<b>B</b>	Cursore a centro aperto (P→S) in posizione centrale. Utilizzo B chiuso, utilizzo A allo scarico. A leva spinta P→S, B→S a leva tirata P→B, A→S. Shaft pilot center open (P→S) in central position. Cylinder B closed, cylinder A at the exhaust. Lever pushed P→A B→S lever pulled P→B A→S.		<b>O</b>	Cursore a centro chiuso. In posizione centrale utilizzo A a scarico. Utilizzo B chiuso. A leva spinta P→A, B→S a leva tirata P→B A→S. Ottenibile anche montando sullo scarico il tappo «D» con cursore tipo «B».
	<b>E</b>	Cursore a centro aperto (P→S) in posizione centrale per cilindri a semplice effetto. Utilizzo chiuso. A leva spinta P→B→S. A leva tirata P→B Shaft pilot center open (P→S) in central position for cylinders simple effect. Cylinder closed. Lever pushed P→B→S. Lever pulled P→S.		<b>P</b>	Cursore a centro aperto, per cilindri a semplice effetto o motori unidirezionali. In posizione centrale utilizzo B a scarico. A leva tirata P→B Shaft pilot open center. For cylinders simple effect or unidirectional engines. In central position cylinder B at the exhaust. Lever pushed P→B
	<b>F</b>	Cursore a centro aperto (P→S) in posizione centrale per cilindri a semplice effetto. Utilizzo chiuso. A leva spinta P→A. A leva tirata P→A→S. Shaft pilot open center (P→S) in central position for cylinders simple effect. Cylinder closed. Lever pushed P→A. Lever pulled P→A→S.		<b>Q</b>	Cursore a centro aperto per cilindri a semplice effetto o motori unidirezionali. In posizione centrale utilizzo A, a scarico a leva spinta P→A. Shaft pilot open center for cylinders simple effect or unidirectional engines. In central position cylinder A at the exhaust. Lever pushed P→A.
	<b>G</b>	Cursore a centro aperto (P→S) in posizione centrale. Utilizzi chiusi. Per cilindri a doppio effetto con IV posizione flottante. A leva spinta P→A, B→S. A leva ulteriormente spinta A→B→S con aggancio di ritenuta. A leva tirata P→B, A→S. Shaft pilot center open (P→S) in central position. Cylinders closed. For cylinders double effect. Lever pushed P→A B→S. Lever much more pushed A→B→S with hooking of groove. Lever pulled P→B A→S.			

# MONOBLOCK VALVES



## TYPE OF CONTROL AVAILABLE

SCHEMA SCHEME	SIGLA CODE	CARATTERISTICHE FEATURES	SCHEMA SCHEME	SIGLA CODE	CARATTERISTICHE FEATURES
	<b>1</b>	Posizione 2: stabile. Posizioni 1-3: ritorno a molla in posizione 2. Position 2: stable. Position 1-3: spring return in pos. 2.		<b>4</b>	Ritenuta a scatti nelle posizioni estreme. Transitorio aperto = 4C, transitorio chiuso = 4D. Groove release in extremis position. Transient open = 4C - Transient closed = 4D
	<b>213</b>	Posizione 3: stabile. Leva normalmente rientrata tirando la leva vado in posizione 1. Transitorio aperto = 213-C - transitorio chiuso = 213-D. Position 3: stable. Lever normally reentered pulling the lever go in position 1. Transient open = 213-C - Transien closed = 213-D		<b>423</b>	Ritenuta a scatti nelle posizioni 2-3 posizione centrale e a leva spinta stabili. Groove release in positions 2-3. Central position and stabiles in pushed lever.
	<b>212</b>	Posizione 2: stabile. Tirando la leva vado in posizione 1. Rilasciando torna in posizione 2. Position 2: stable. Pulling the lever go in position 1. Leaving it returns in position 2		<b>412</b>	Ritenuta a scatti nelle posizioni 1-2 posizione centrale e a leva tirata stabili. Groove release in position 1-2. Central position and stabiles in pulled lever.
	<b>223</b>	Posizione 2: stabile. Spingendo la leva vado in posizione 3. Rilasciando torna in posizione 2. Position 2: stable. Pushing the lever go in position 2. Leaving it returns in position 2.		<b>5</b>	Ritenuta a scatti in posizione 3 a leva spinta. Posizione centrale 2 stabile. Posizione 1 con leva tirata con ritorno a molla in posizione 2. Groove release in position 3 in pushed lever. Central position N° 2 stable. Position 1 with pulled lever with spring return in position 2.
	<b>213/B</b>	Posizione 1: stabile. Leva normalmente fuori. Spingendo la leva vado in posizione 3 transitorio aperto = 213/B-C - transitorio chiuso = 213/B-D Position 1: stable. Levere normally out. Pushing the lever go in position 3 transient open: 213/B-C - transien closed: 213/B-D		<b>6</b>	Azionamento con servocomando pneumatico posizione 2 stabile. Posizioni estreme 1-3 con ritorno al centro. Operating with pneumatic serve control. Position 2 stable. Ex-trem positions 1-3 with return in the center.
	<b>212/B</b>	Posizione 1: stabile. Leva normalmente fuori. Spingendo la leva vado in posizione 2. Rilasciando torna in posizione 1. Position 1: stable. Lever normally out pushing the lever go in position 2 leaving it returns in position 1.		<b>7</b>	Ritenuta a scatti nelle 4 posizioni. È possibile solo con cursore di tipo G. Groove release in the four positions. It is possible only with shaft pilot type G.
	<b>223/B</b>	Posizione 3: stabile. Leva normalmente dentro. Tirando la leva vado in posizione 2. Rilasciando torna in posizione 3. Position 3: stable. Lever normally in. Pulling the lever go in position 2. Leaving it returns in position 3.		<b>8</b>	Azionamento con servocomando oleodinamico. Posizione 2 stabile. Posizioni 1-3 con ritorno a molla in posizione 2 (senza leva di azionamento). Operating with pneumatic serve control. Position 2 stable. Positions 1-3 with spring return in position 2 (without lever of operation).
	<b>3</b>	Ritenuta a scatti nelle 3 posizioni. Groove release in three position.		<b>9</b>	Ritenuta a scatti in posizione 1 a leva tirata. Posizione centrale 2 stabile. Posizione 3 a leva spinta con ritorno a molla al centro. Groove release in position 1 lever pulled. Central position 2 stable. Position 3 lever pushed with spring return in the center.



# MB/60-1

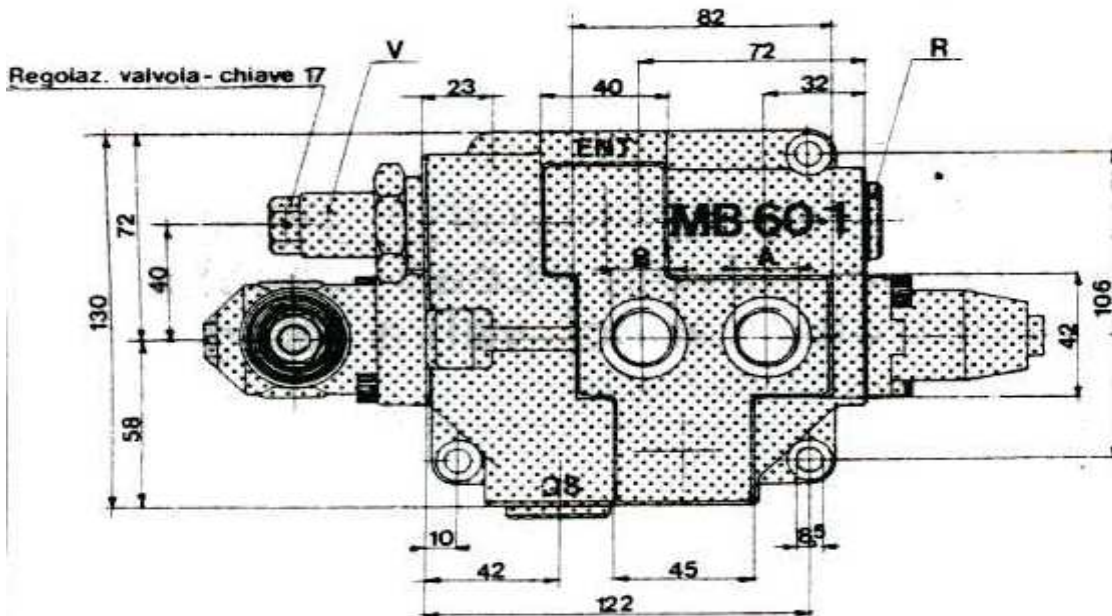
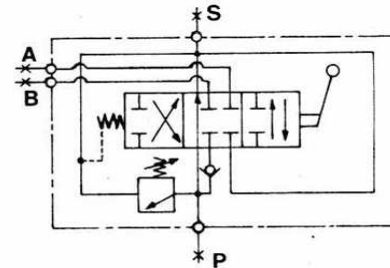
# MONOBLOCK VALVES



<b>MAX FLOW</b>	<b>80 LIT/MIN</b>
<b>MAX PRESSURE</b>	<b>350 BAR</b>
<b>BACK PRESSURE</b>	<b>80 BAR</b>
<b>LEAKAGE TO 100 BAR</b>	<b>2CC/MIN</b>
<b>WEIGHT</b>	<b>KG. 6,4</b>
<b>CONFIGURATION</b>	<b>PARALLEL</b>

ATTACCHI FILETTATI THREAD DIMENSIONS	
P-A-B	1/2" BSP
S	3/4" BSP

SCHEMA

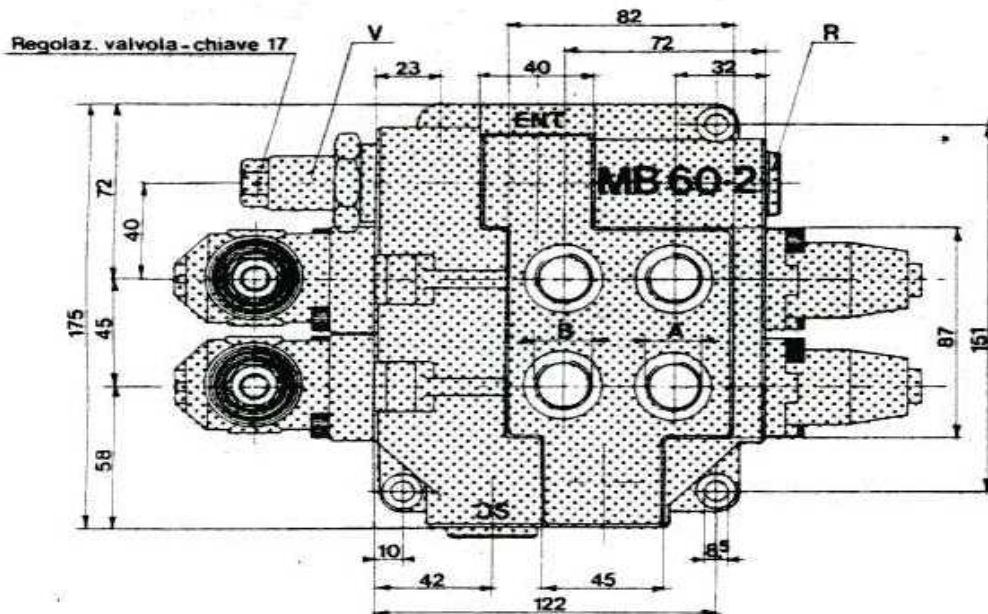
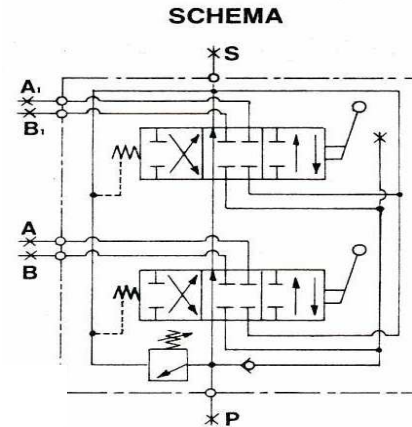


<b>P</b>	<b>Pressione</b>	<b>Pressure - inlets</b>
<b>A-B</b>	<b>Utilizzi</b>	<b>Service ports</b>
<b>S</b>	<b>Scarico</b>	<b>Tank - exhaust</b>
<b>V</b>	<b>Regolazione Press. massima</b>	<b>Relief valve adjustment</b>
<b>R</b>	<b>Tappo valvola controllo carico</b>	<b>Load-checks valve plug</b>
<b>Q</b>	<b>Tappo valvola controllo carico collegam. in serie</b>	<b>Load - checks valve plug</b>



<b>MAX FLOW</b>	<b>80 LIT/MIN</b>
<b>MAX PRESSURE</b>	<b>350 BAR</b>
<b>BACK PRESSURE</b>	<b>80 BAR</b>
<b>LEAKAGE TO 100 BAR</b>	<b>2CC/MIN</b>
<b>WEIGHT</b>	<b>KG. 9,3</b>
<b>CONFIGURATION</b>	<b>PARALLEL</b>

ATTACCHI FILETTATI THREAD DIMENSIONS	
P-A-B	1/2" BSP
S	3/4" BSP



<b>P</b>	<b>Pressione</b>	<b>Pressure - inlets</b>
<b>A-B</b>	<b>Utilizzi</b>	<b>Service ports</b>
<b>S</b>	<b>Scarico</b>	<b>Tank - exhaust</b>
<b>V</b>	<b>Regolazione Press. massima</b>	<b>Relief valve adjustment</b>
<b>R</b>	<b>Tappo valvola controllo carico</b>	<b>Load-checks valve plug</b>
<b>Q</b>	<b>Tappo valvola controllo carico collegam. in serie</b>	<b>Load - checks valve plug</b>

# MB/60-3

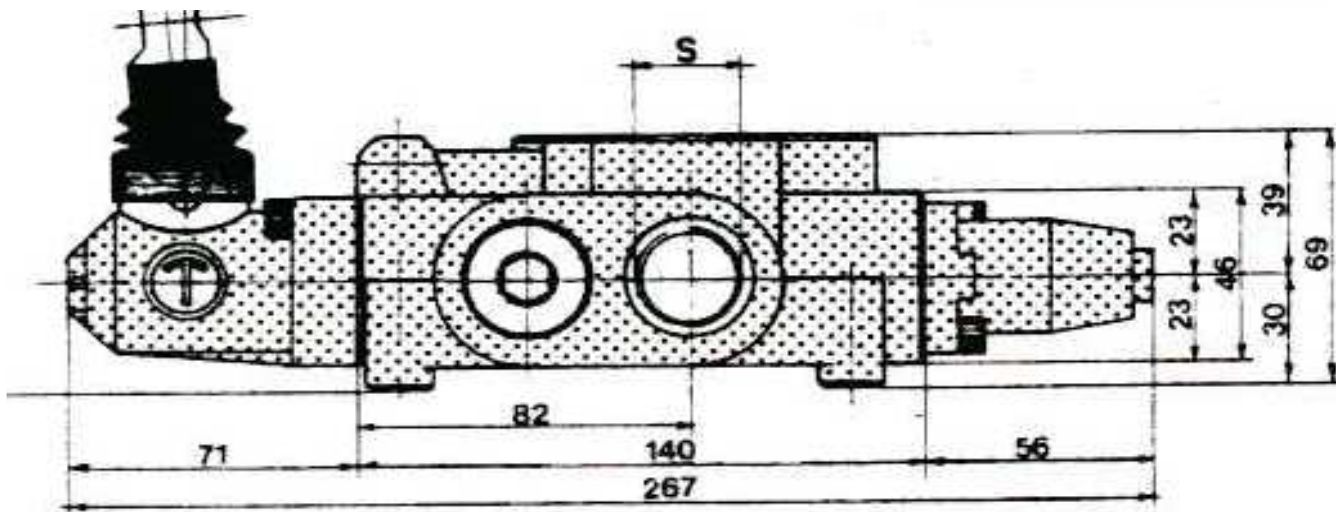
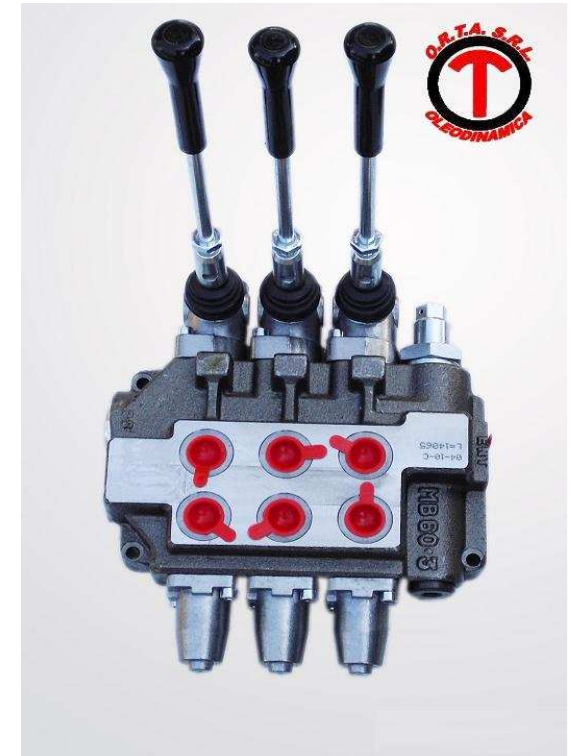
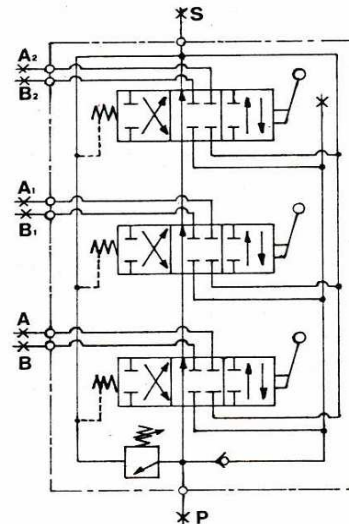
# MONOBLOCK VALVES



MAX FLOW	80 LIT/MIN
MAX PRESSURE	350 BAR
BACK PRESSURE	80 BAR
LEAKAGE TO 100 BAR	2CC/MIN
WEIGHT	KG. 12,2
CONFIGURATION	PARALLELE

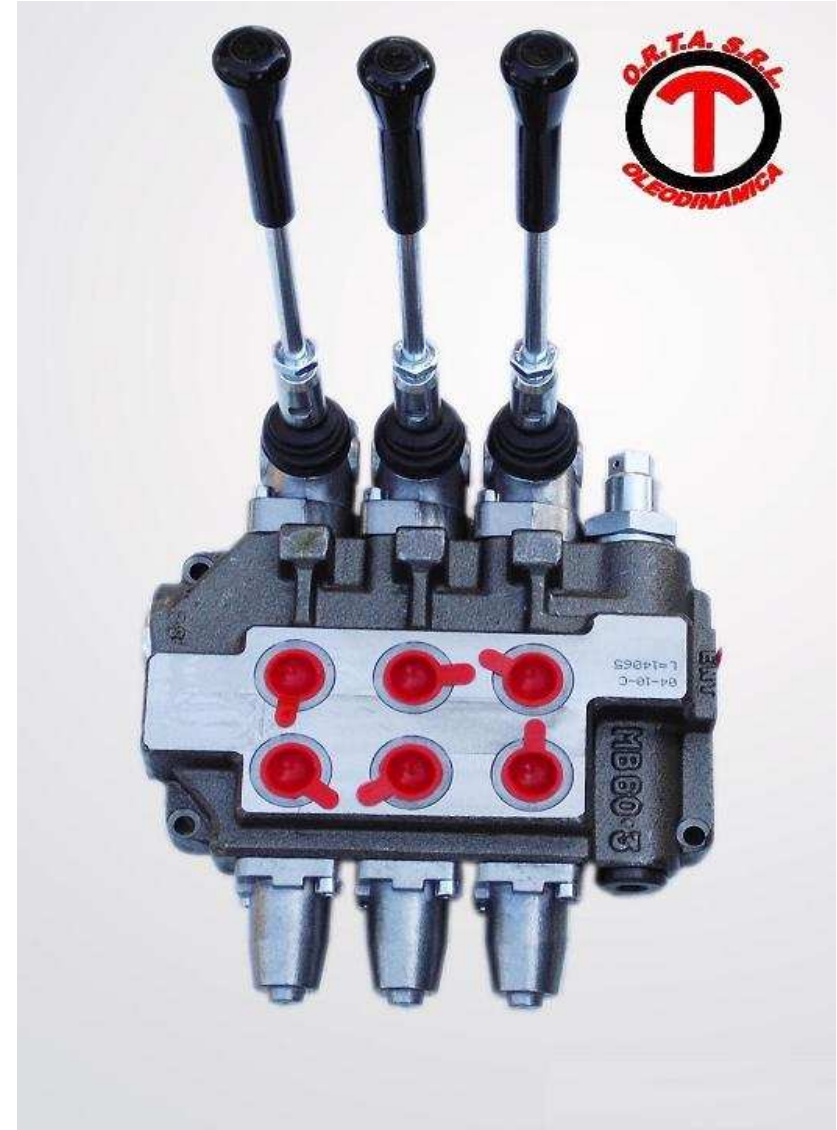
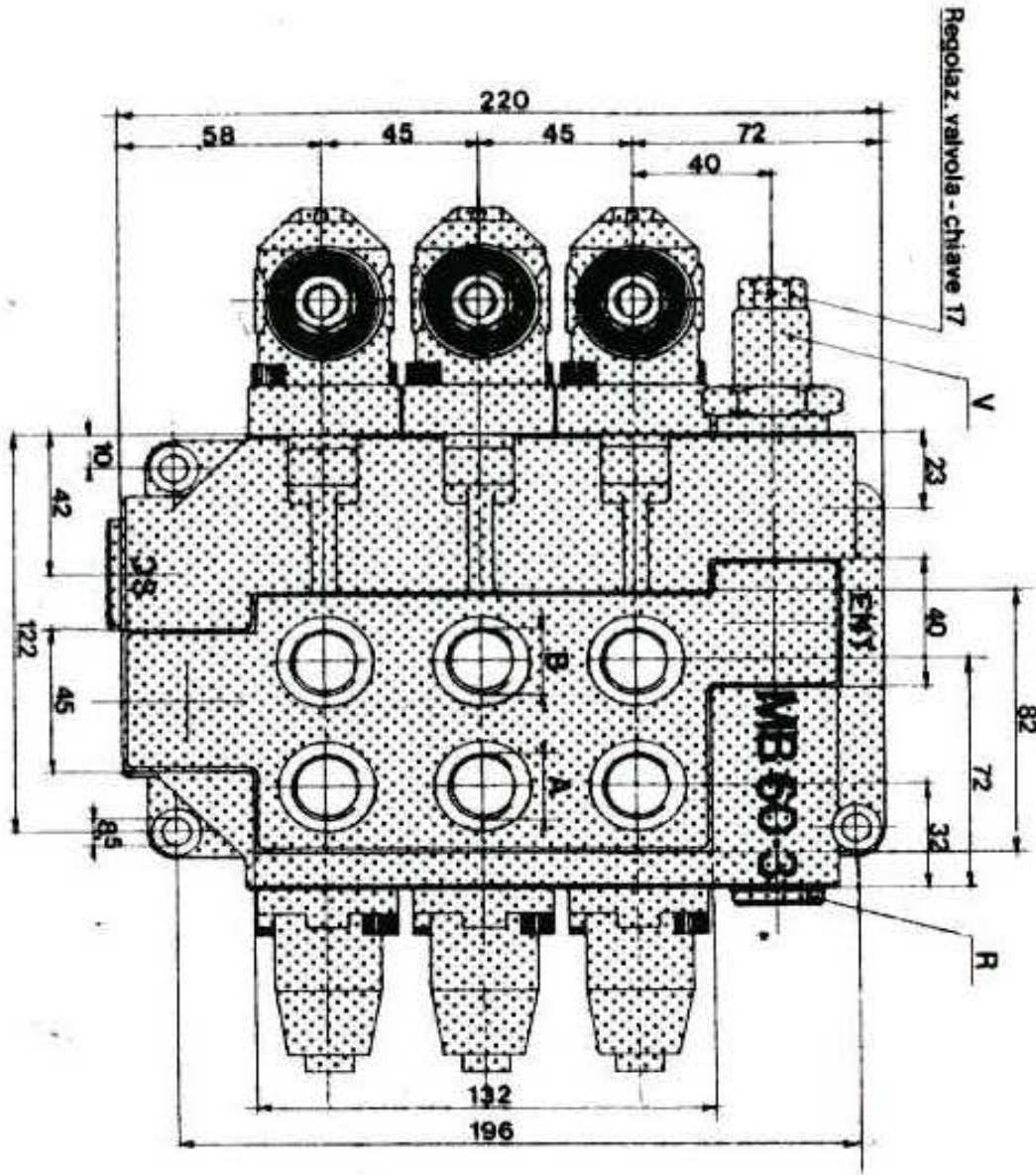
ATTACCHI FILETTATI THREAD DIMENSIONS	
P-A-B	1/2" BSP
S	3/4" BSP

SCHEMA



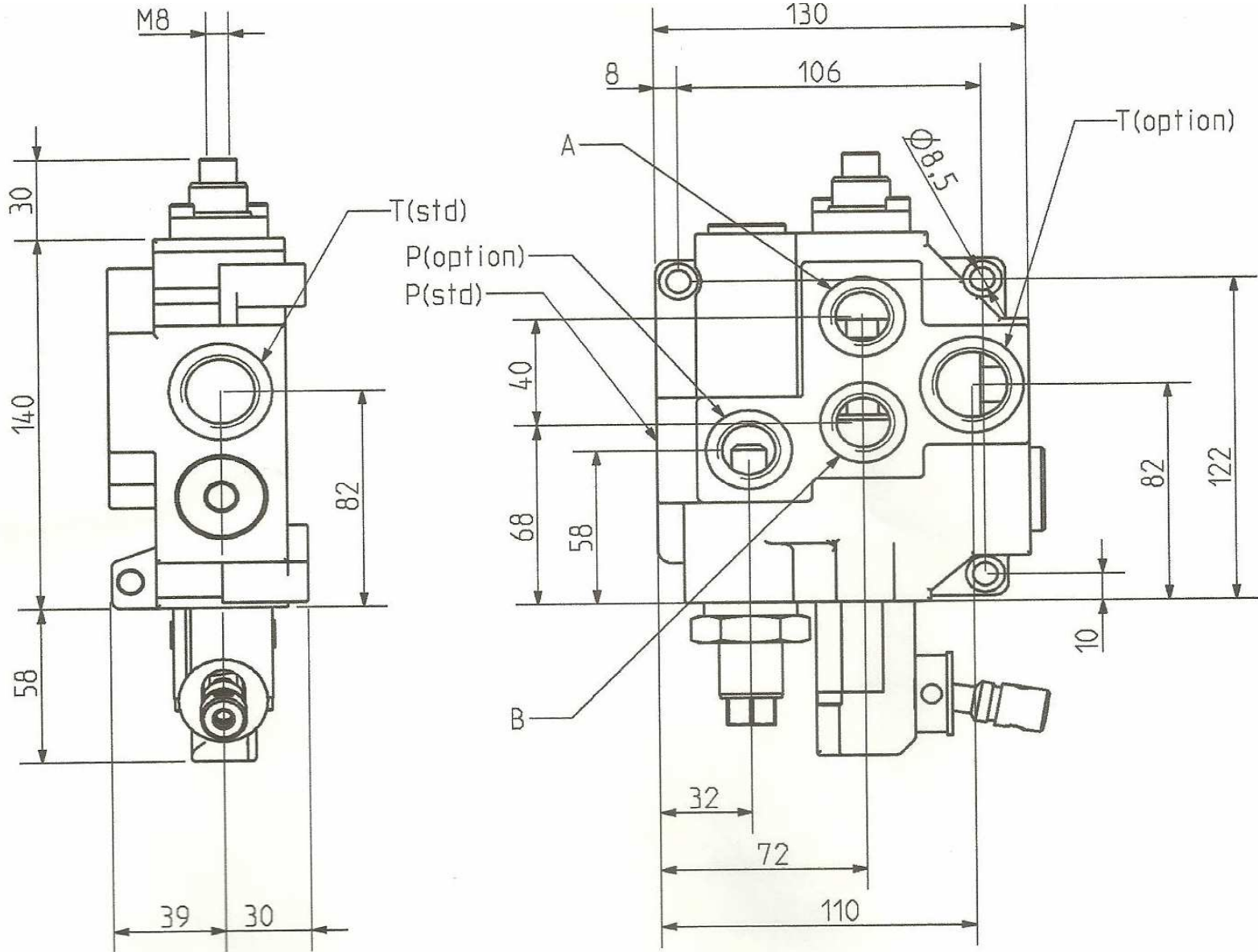
P	Pressione	Pressure - inlets
A-B	Utilizzi	Service ports
S	Scarico	Tank - exhaust
V	Regolazione Press. massima	Relief valve adjustment
R	Tappo valvola controllo carico	Load-checks valve plug
Q	Tappo valvola controllo carico collegam. in serie	Load - checks valve plug



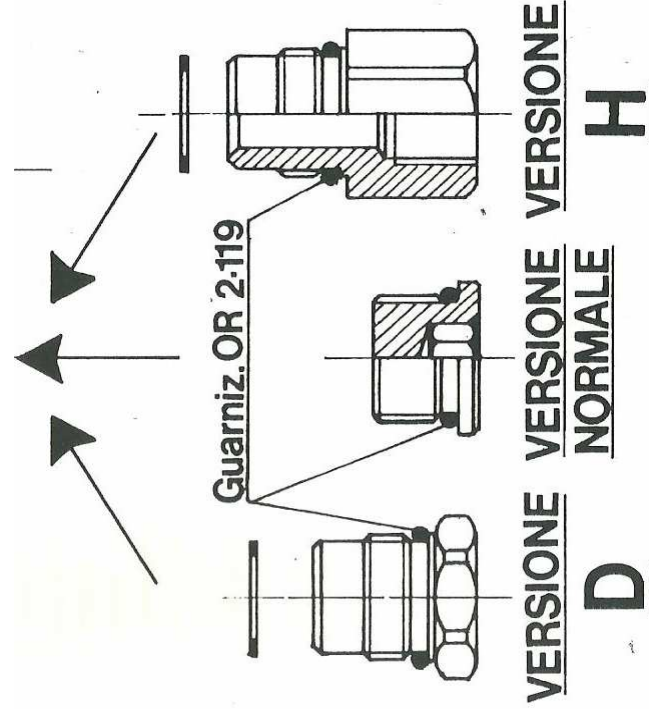
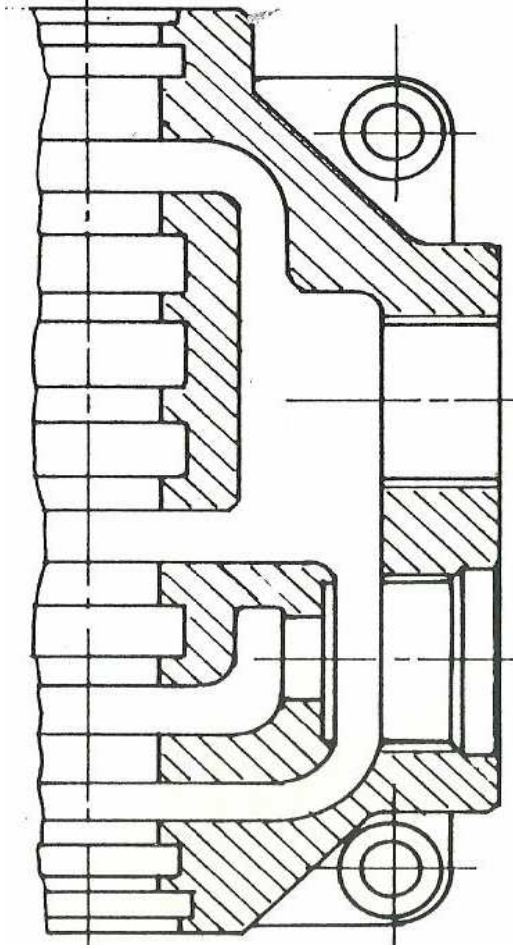




MB/60/1-A213/B-ECO-H15-ECO VERSION



ASSEMBLY DIAGRAM FOR CARRY-OVER "H" PLUG OR CLOSED CENTER "D" PLUG



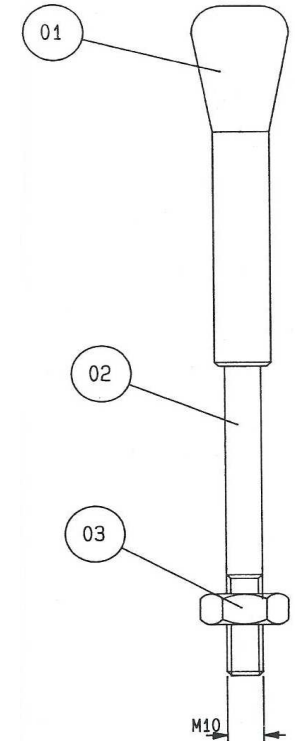
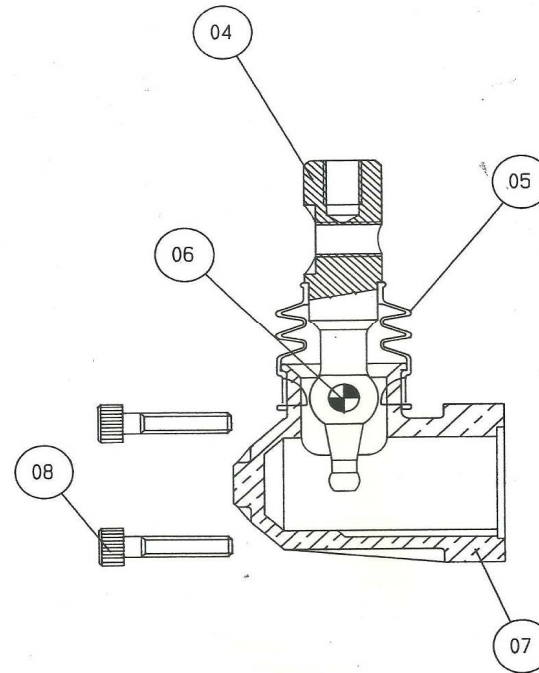
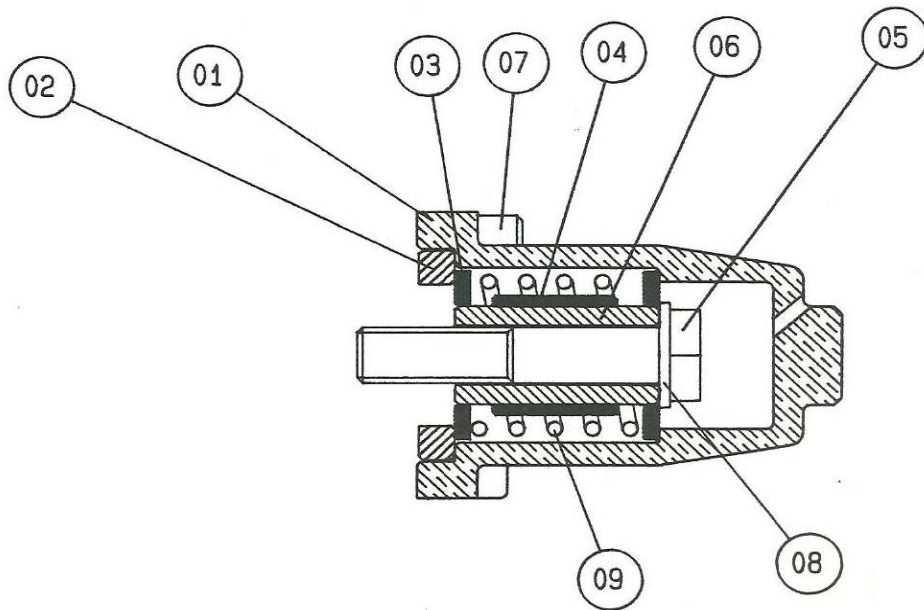
Centro chiuso  
Center closed

Carry over

MASSIMO MOMENTO  
TORCENTE DI CHIUSURA =  $\frac{7+1}{70+10} \text{ KG.MT}$   
MAXIMUM COUPLE

## KIT 1 SPRING THREE POSITION

## KIT LEVER FOR MB/60

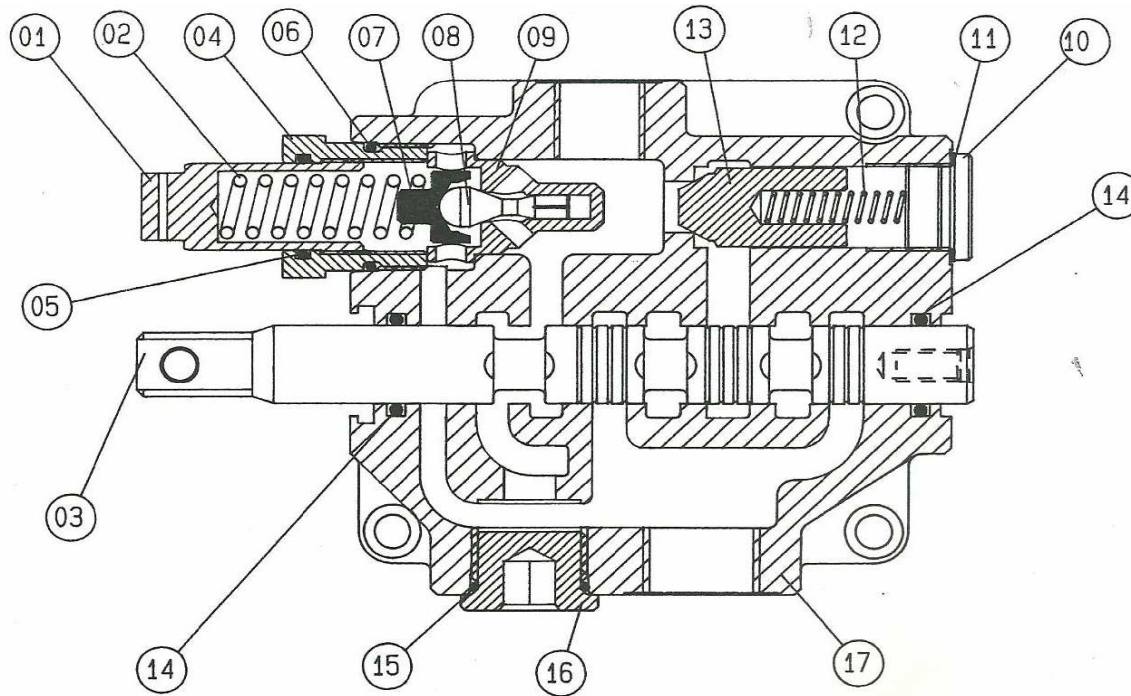


POS.	DENOMINAZIONE/ NAMED	CODICE	QUANT
01	CORPO CAPPELLOTTO	05-007	1
02	ANELLO CENTRAGGIO	05-027	1
03	RONDELLA MOLLA	05-080	2
04	DISTANZIALE CORSA	08-023	1
05	VITE TE M8X40	50-060	1
06	DISTANZIALE FISSO	05-055	1
07	VITE FISS M6X14	50-007	2
08	RONDELLA FERMO	55-027	1
09	MOLLA RICHIAMO	M-043	1

POS	DENOMINAZIONE	CODICE	Quant	NOTE
01	Pomolo gomma	01-123	1	
02	Asta leva l=260 mm	01-0372	1	
03	Dado di bloccaggio	65-060	1	
04	Sfera snodata	08-012	1	
05	Soffietto in gomma	R-391	1	
06	Spina	08-067	1	
07	Scatola leva	08-008	1	
08	Viti fissaggio TCCE M6X25	50-008	2	



## SPARE PARTS BODY MB/60



POS	DENOMINAZIONE	CODICE	1 Leva	2 Leve	3 leve	NOTE
01	Cappello premimolla	09-031	1	1	1	
02	Molla massima pressione	M-008	1	1	1	
03	Stelo comando tipo A	08-013	1	2	3	
03	Stelo comando tipo E	08-042				
03	Stelo comando tipo C	08-068				
04	Cappello sede	09-030	1	1	1	
05	Oring 21, 82x3, 53	60-473	1	1	1	OR 2-212
06	Oring 28, 42x2, 62	60-295	1	1	1	OR 2-122
07	Cappuccio spillo	08-066	1	1	1	
08	Spillo massima pressione	08-065	1	1	1	
09	Sede spillo	08-064	1	1	1	
10	Tappo valvola ritegno	09-044	1	1	1	
11	Rondella tenuta	55-009	1	1	1	
12	Molla valvola ritegno	M-010	1	1	1	
13	Otturatore valvola ritegno	09-015	1	1	1	
14	Oring 20, 22x3, 53	60-472	2	4	6	OR 2-211
15	Oring 23, 47x2, 62	60-291	1	1	1	OR 2-119
16	Tappo cilindrico 3/4	11-027	1	1	1	
17	Corpo valvola 1 leva	08-033	1			
17	Corpo valvola 2 leve	08-034		1		
17	Corpo valvola 3 leve	08-040			1	

# MONOBLOCK VALVES



## TYPE OF CIRCUIT AVAILABLE

SCHEMA SCHEME	SIGLA CODE	CARATTERISTICHE FEATURES	SCHEMA SCHEME	SIGLA CODE	CARATTERISTICHE FEATURES
	<b>A</b>	Cursore a centro aperto (P→S) in posizione centrale. Utilizzi chiusi. A leva spinta P→A, B→S. A leva tirata P→B, A→S.  Shaft pilot open center (P→S) in central position. Cylinder closed. Lever pushed P→A B→S. Lever pulled P→B A→S.		<b>I</b>	Cursore a centro aperto (P→S) in posizione centrale. Utilizzo A chiuso. Utilizzo B a scarico. A leva spinta P→A, B→S. A leva tirata P→B, A→S.  Shaft pilot open center (P→S) in central position. Port A closed. Port B at exhaust. Lever pushed P→A B→S. Lever pulled P→B A→S.
	<b>C</b>	Cursore a centro aperto (P→S) in posizione centrale. Utilizzi allo scarico. A leva spinta P→A, B→S. A leva tirata P→B, A→S.  Shaft pilot open center (P→S) in central position. Cylinders at the exhaust. Lever pushed P→A B→S, lever pulled P→B A→S.		<b>M</b>	Cursore a centro chiuso. In posizione centrale. Utilizzi allo scarico. A leva spinta P→A, B→S. A leva tirata P→B, A→S. Ottenibile anche montando sullo scarico il tappo «D» con cursore tipo «C».
	<b>D</b>	Cursore a centro chiuso (P→) in posizione centrale. Utilizzi chiusi. A leva spinta P→A, B→S. A leva tirata P→B, A→S. Ottenibile anche montando sullo scarico il tappo «D» (tav. 0022)  Shaft pilot center closed (P→) in central position. Cylinders closed. Lever pushed P→A B→S lever pulled P→B A→S. It is possible to obtain it also mounting on the exhaust the cap «D» (tav. 0022)		<b>N</b>	Cursore a centro chiuso. In posizione centrale utilizzo B a scarico. Utilizzo A chiuso. A leva spinta P→A, B→S. A leva tirata P→B, A→S. Ottenibile anche montando sullo scarico il tappo «D» con cursore tipo «B».
	<b>B</b>	Cursore a centro aperto (P→S) in posizione centrale. Utilizzo B chiuso, utilizzo A allo scarico. A leva spinta P→S, B→S a leva tirata P→B, A→S.  Shaft pilot center open (P→S) in central position. Cylinder B closed, cylinder A at the exhaust. Lever pushed P→A B→S lever pulled P→B A→S.		<b>O</b>	Cursore a centro chiuso. In posizione centrale utilizzo A a scarico. Utilizzo B chiuso. A leva spinta P→A, B→S a leva tirata P→B, A→S. Ottenibile anche montando sullo scarico il tappo «D» con cursore tipo «B».
	<b>E</b>	Cursore a centro aperto (P→S) in posizione centrale per cilindri a semplice effetto. Utilizzo chiuso. A leva spinta P→B→S. A leva tirata P→B  Shaft pilot center open (P→S) in central position for cylinders simple effect. Cylinder closed. Lever pushed P→B→S. Lever pulled P→S.		<b>P</b>	Cursore a centro aperto. per cilindri a semplice effetto o motori unidirezionali. In posizione centrale utilizzo B a scarico. a leva tirata P→B  Shaft pilot open center. For cylinders simple effect or unidirectional engines. In central position cylinder B at the exhaust. Lever pushed P→B
	<b>F</b>	Cursore a centro aperto (P→S) in posizione centrale per cilindri a semplice effetto. Utilizzo chiuso. A leva spinta P→A. a leva tirata P→A→S.  Shaft pilot open center (P→S) in central position for cylinders simple effect. Cylinder closed. Lever pushed P→A. Lever pulled P→A→S.		<b>Q</b>	Cursore a centro aperto per cilindri a semplice effetto o motori unidirezionali. In posizione centrale utilizzo A, a scarico a leva spinta P→A.  Shaft pilot open center for cylinders simple effect or unidirectional engines. In central position cylinder A at the exhaust. Lever pushed P→A.
	<b>G</b>	Cursore a centro aperto (P→S) in posizione centrale. Utilizzi chiusi. Per cilindri a doppio effetto con IV posizione flottante. A leva spinta P→A, B→S. A leva ulteriormente spinta A→B→S con aggancio di ritenuta. A leva tirata P→B, A→S.  Shaft pilot center open (P→S) in central position. Cylinders closed. For cylinders double effect. Lever pushed P→A B→S. Lever much more pushed A→B→S with hooking of groove. Lever pulled P→B A→S.			



# MONOBLOCK VALVES



## TYPE OF CONTROL AVAILABLE

SCHEMA SCHEME	SIGLA CODE	CARATTERISTICHE FEATURES	SCHEMA SCHEME	SIGLA CODE	CARATTERISTICHE FEATURES
	<b>1</b>	Posizione 2: stabile. Posizioni 1-3: ritorno a molla in posizione 2. Position 2: stable. Position 1-3: spring return in pos. 2.		<b>4</b>	Ritenuta a scatti nelle posizioni estreme. Transitorio aperto = 4C, transitorio chiuso = 4D. Groove release in extremis position. Transient open = 4C - Transient closed = 4D
	<b>213</b>	Posizione 3: stabile. Leva normalmente rientrata tirando la leva vado in posizione 1. Transitorio aperto = 213-C - transitorio chiuso = 213-D. Position 3: stable. Lever normally reentered pulling the lever go in position 1. Transient open = 213-C - Transien closed = 213-D		<b>423</b>	Ritenuta a scatti nelle posizioni 2-3 posizione centrale e a leva spinta stabili. Groove release in positions 2-3. Central position and stabiles in pushed lever.
	<b>212</b>	Posizione 2: stabile. Tirando la leva vado in posizione 1. Rilasciando torna in posizione 2. Position 2: stable. Pulling the lever go in position 1. Leaving it returns in position 2		<b>412</b>	Ritenuta a scatti nelle posizioni 1-2 posizione centrale e a leva tirata stabili. Groove release in position 1-2. Central position and stabiles in pulled lever.
	<b>223</b>	Posizione 2: stabile. Spingendo la leva vado in posizione 3. Rilasciando torna in posizione 2. Position 2: stable. Pushing the lever go in position 2. Leaving it returns in position 2.		<b>5</b>	Ritenuta a scatti in posizione 3 a leva spinta. Posizione centrale 2 stabile. Posizione 1 con leva tirata con ritorno a molla in posizione 2. Groove release in position 3 in pushed lever. Central position N° 2 stable. Position 1 with pulled lever with spring return in position 2.
	<b>213/B</b>	Posizione 1: stabile. Leva normalmente fuori. Spingendo la leva vado in posizione 3 transitorio aperto = 213/B-C - transitorio chiuso = 213/B-D Position 1: stable. Levere normally out. Pushing the lever go in position 3 transient open: 213/B-C - transien closed: 213/B-D		<b>6</b>	Azionamento con servocomando pneumatico posizione 2 stabile. Posizioni estreme 1-3 con ritorno al centro. Operating with pneumatic serve control. Position 2 stable. Ex-trem positions 1-3 with return in the center.
	<b>212/B</b>	Posizione 1: stabile. Leva normalmente fuori. Spingendo la leva vado in posizione 2. Rilasciando torna in posizione 1. Position 1: stable. Lever normally out pushing the lever go in position 2 leaving it returns in position 1.		<b>7</b>	Ritenuta a scatti nelle 4 posizioni. È possibile solo con cursore di tipo G. Groove release in the four positions. It is possible only with shaft pilot type G.
	<b>223/B</b>	Posizione 3: stabile. Leva normalmente dentro. Tirando la leva vado in posizione 2. Rilasciando torna in posizione 3. Position 3: stable. Lever normally in. Pulling the lever go in position 2. Leaving it returns in position 3.		<b>8</b>	Azionamento con servocomando oleodinamico. Posizione 2 stabile. Posizioni 1-3 con ritorno a molla in posizione 2 (senza leva di azionamento). Operating with pneumatic serve control. Position 2 stable. Positions 1-3 with spring return in position 2 (without lever of operation).
	<b>3</b>	Ritenuta a scatti nelle 3 posizioni. Groove release in three position.		<b>9</b>	Ritenuta a scatti in posizione 1 a leva tirata. Posizione centrale 2 stabile. Posizione 3 a leva spinta con ritorno a molla al centro. Groove release in position 1 lever pulled. Central position 2 stable. Position 3 lever pushed with spring return in the center.