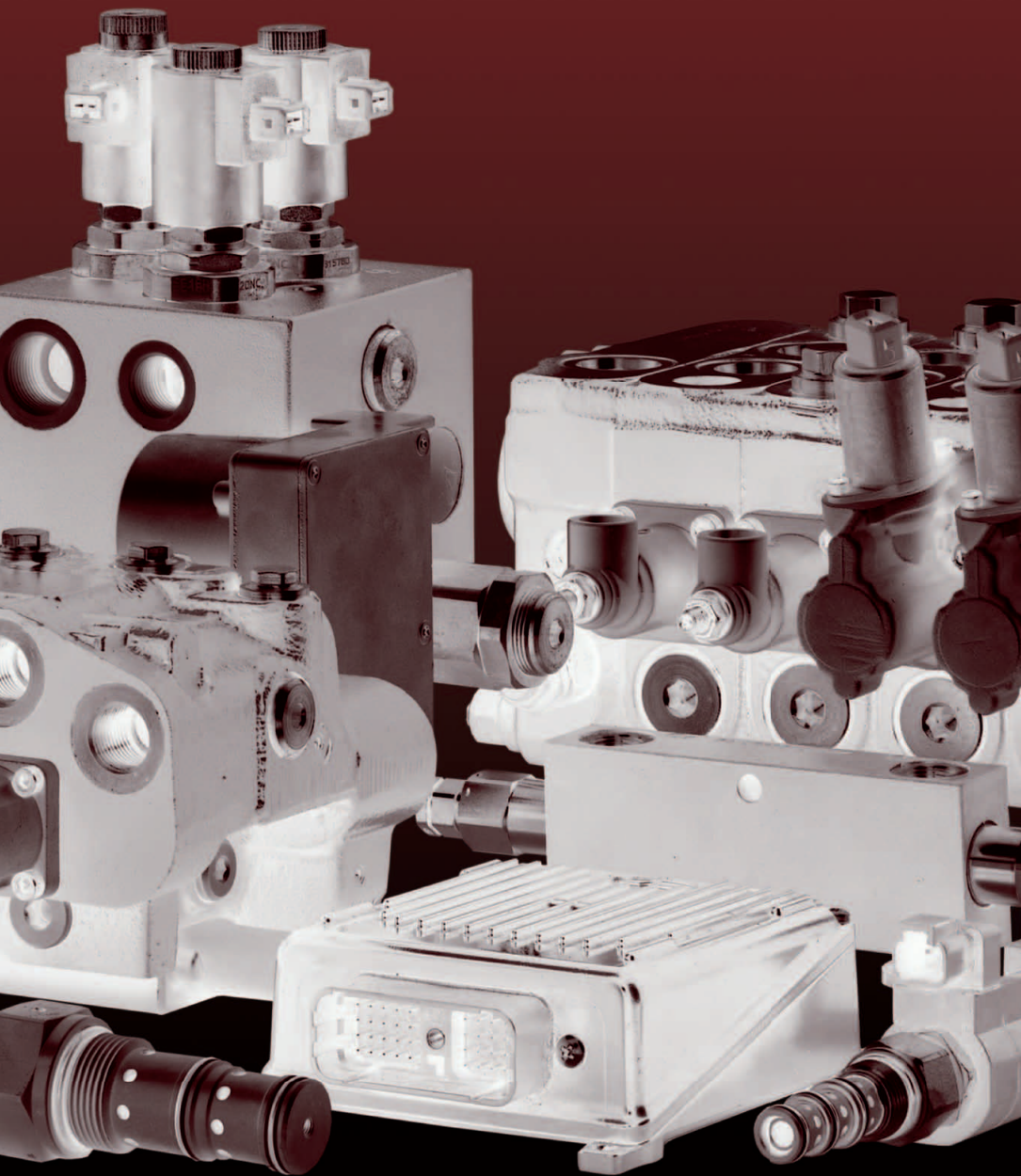


O V E R V I E W 14

PROGRAMMA DI PRODUZIONE
PRODUCT INFORMATION





W1 Sede principale
W1 Headquarters



W2 Lavorazioni meccaniche
W2 mechanical machining

- WALVOIL**
- FRANCIA: **WALVOIL FLUID POWER**
 - USA: **WALVOIL FLUID POWER CORP**
TULSA (O)
 - COREA: **WALVOIL FLUID POWER KO**
KWANGJU OF K
 - INDIA: **WALVOIL FLUID POWER (INDIA) P**
BA
 - CINA: **WALVOIL FLUID POWER SHANGHAI COMPANY Y**
S
 - BRASILE: **WALVOIL FLUID POWER DO**
CAXIAS
 - AUSTRALASIA: **WALVOIL FLUID POWER AUSTR**
ME

"Conoscenza, competenza, etica, rispetto delle persone e dell'ambiente sono i pilastri di un'azienda che vuole essere affidabile ed avere successo sul mercato".

"Knowledge, competence, responsible care and ethics are the pillars of a company willing to be reliable and successful in the market".

Ivano Corghi
Presidente Walvoil
President of Walvoil



W3 NU
W3 Ne

**Insieme per progettare il futuro
Together, to build the future**

Walvoil è uno dei principali produttori mondiali di valvole oleodinamiche e di sistemi meccatronici completi per il mercato del macchinario mobile.

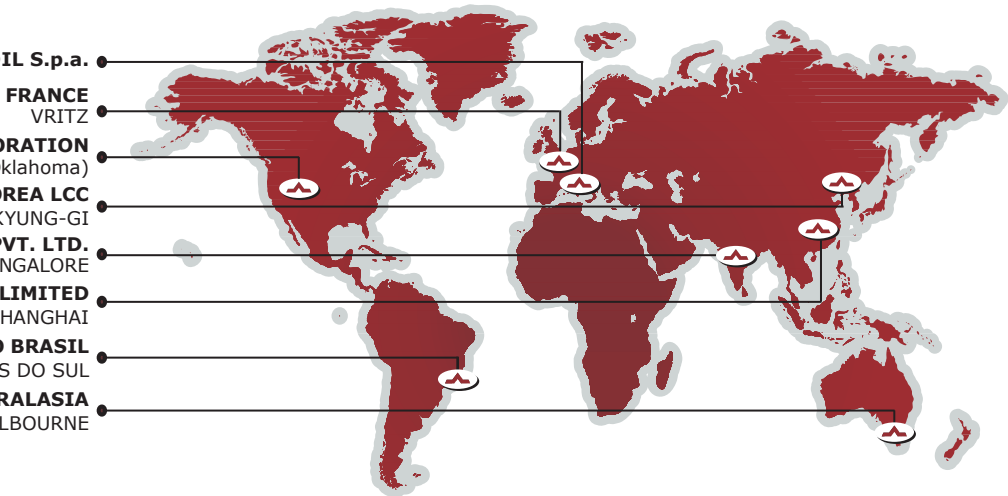
Sviluppiamo e realizziamo prodotti e sistemi per controllare idraulicamente ed elettronicamente ciò che ruota attorno al movimento.

Lo facciamo attraverso l'ascolto, l'attenzione, la professionalità e le competenze in evoluzione costante, che mettiamo a disposizione di clienti e partners che operano in settori e mercati diversi.

Walvoil is one of the world's leading manufacturers of hydraulic valves and complete mechatronic systems for the mobile equipment market.

We design and develop products and systems to provide hydraulic and electronic control of nearly any hydraulic function dealing with machine movement.

To achieve these results, we listen closely and focus our attention to our clients' requirements, provide consistent communication in order to apply our technical and production skills to the benefit of our entire client and market partners.



Walvoil Fluid Power Corporation
Tulsa - Oklahoma



Walvoil Fluid Power Korea LCC
Kwangju of Kyung-Gi



Walvoil Fluid Power India PVT. LTD.
Bangalore



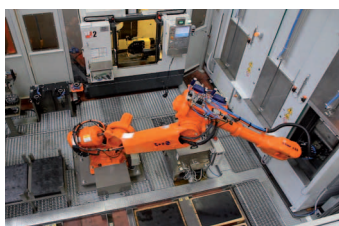
Walvoil Fluid Power Shanghai Company Limited
Shanghai



Walvoil Fluid Power Do Brasil
Caxias do Sul



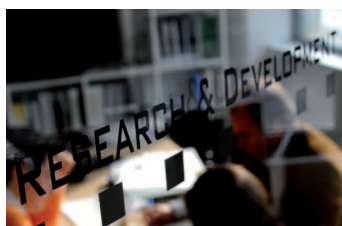
nuovo polo produttivo e logistico
New production and logistic pole



W1 Lavorazioni meccaniche
W1 mechanical machining



Test Department Walvoil accreditato
rete laboratori alta tecnologia E/R
Walvoil Test Department, part of the
E/R high-technology lab network



Ricerca e Sviluppo
Research & Development



I settori nei quali interveniamo, mettendo a disposizione un'ampia ed integrata gamma di prodotti sono:

- **macchine agricole**
- **macchine movimento terra**
- **macchine edili**
- **veicoli industriali**
- **sollevamento e trasporto**
- **applicazioni industriali**
- **applicazioni speciali**



Le nostre radici ci sostengono anche nel mettere in pratica una quotidiana ed autentica propensione alla flessibilità e all'efficienza, il cui risultato sono soluzioni personalizzate, ove richieste, ed elevate affidabilità e competitività. Disponiamo infatti di un'ampia ed integrata gamma di prodotti dedicati e testati per ogni singola applicazione.

Attraverso le ultime novità inserite in produzione, Walvoil ha inteso sviluppare un'importante esperienza nell'utilizzo dell'elettronica applicata all'oleodinamica. In ambito di applicazioni, la nostra offerta al mercato si arricchisce della storica partnership con Casappa Spa, produttrice di pompe, motori e filtri idraulici.



We are involved in the following market sectors we have been providing a broad and integrated range of products to:

- **agricultural machines**
- **earth moving machines**
- **construction and mining equipment**
- **industrial vehicles**
- **lifting and transport**
- **industrial equipment**
- **special applications**

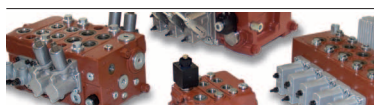


Our background further enhances our vocation and commitment to implementing a consistent and authentic trend to flexibility and efficiency resulting into successful customized products and high reliability and competitiveness.

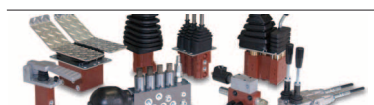
We provide a broad and integrated range of products that can always be specialized and certified for every single application.

Through the last news included in production, Walvoil has intended to develop an important experience in the use of electronics applied to mobile hydraulics. Our systems approach to an application is enriched thanks to our consolidated partnership with Casappa pumps, motors and filters.



I prodotti
Product range

Distributori oleodinamici
Directional control valves

- **Monoblocco** pag. 6
Monoblock valves page 6
- **Componibili** pag. 7
Sectional valves page 7
- **Load-Sensing pre-compensati e Flow Sharing** pag. 8
Pressure pre-compensated Load-Sensing and Flow Sharing valves page 8
- **Deviatori di flusso** pag. 9
Diverter valves page 9
- **Direzionali elettrici** pag. 10
Directional control valves with direct acting solenoid page 10

Sistemi di controllo e comando
Pilot and control devices


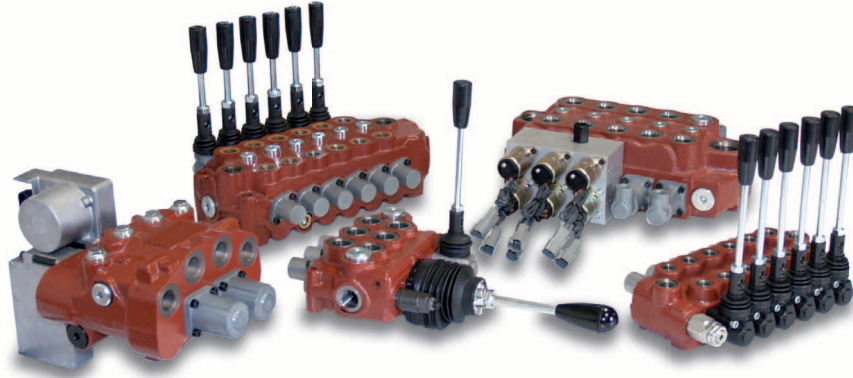
- **Servocomandi e unità di alimentazione** pag. 11
Pilot control valves and feed units page 11
- **Componenti elettronici e sistemi PHC** pag. 13
Electronic components and PHC systems page 13
- **Impugnature e accessori** pag. 14
Handles and accessories page 14

Valvole oleodinamiche
Hydraulic valves


- **Valvole con corpo** pag. 15
Parts in body page 15
- **Cartucce cavità SAE** pag. 21
SAE cartridge valves page 21

Blocchi integrati (HICs)
Hydraulic integrated circuits


- **Blocchi integrati** pag. 26
Hydraulic integrated circuits page 26

Monoblocco - Monoblock valves


Tipo Type	Portata nominale Nominal flow (l/min - US gpm)	Pressione massima Max. pressure (bar - psi)	Numero sezioni Nr. of sections	Filettature standard* Standard threads*		Catalogo di riferimento Reference catalogue
				BSP (ISO 228/1)	UN-UNF (ISO 11926-1)	
SDM080	25 - 6.6	315 - 4600	fino a 6 - up to 6	G 1/4	SAE 6	DAT0011/E
SDM081	25 - 6.6	315 - 4600	fino a 6 - up to 6	G 1/4	SAE 6	DAV010IE
SD4	45 - 12	250 - 3600	1	G 3/8	SAE 6	DAC002I/E
SD5	45 - 12	315 - 4600	fino a 7 - up to 7	G 3/8	SAE 6	DAU003I/E
SDM105	45 - 12	315 - 4600	1	G 3/8	SAE 6	DAU003I/E
SDM110	45 - 12	315 - 4600	fino a 6 - up to 6	G 3/8	SAE 6	DAV012IE
SDM100	70 - 18	315 - 4600	fino a 8 - up to 8	G 3/8	SAE 8	D1WWDA02I/E
SD11	70 - 18	315 - 4600	fino a 6 - up to 6	G 1/2	SAE 8	DAT004I/E
SDM140	80 - 21	315 - 4600	fino a 6 - up to 6	G 1/2	SAE 10	DAU007I/E
SD14	120 - 32	250 - 3600	1	G 3/4	SAE 12	DAC005I/E
SD18	160 - 42	250 - 3600	fino a 6 - up to 6	G 3/4	SAE 12	DAT006I/E

Configurazione Load-Sensing - Load-Sensing valve configuration

DLM140	110 - 29	250 - 3600	fino a 6 - up to 6	G 1/2	SAE 10	DAU007I/E
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Specifici per applicazioni - Designed for
Caricatori frontali - Front-loader applications

SDM102	45 - 12	250 - 3600	2	G 3/8	SAE 6	DAT011I/E
SDM103	45 - 12	250 - 3600	2	G 3/8	SAE 6	DAV007IE
SDM122	80 - 21	250 - 3600	2	G 1/2	SAE 10	D1WWEA01I/E
SDM143	80 - 21	250 - 3600	2	G 1/2	SAE 10	DAT009I/E

Caricatori frontali: configurazione Load-Sensing - Front-loader applications: Load-Sensing configuration

DLM122	80 - 21	250 - 3600	2	G 1/2	SAE 10	D1WWEA01I/E
DLM142	80 - 21	250 - 3600	2	G 1/2	SAE 10	DAT010I/E

Specifici per applicazioni su mini pale caricatori - Designed for skid-steer loader applications

SDM141	80 - 21	250 - 3600	3	G 1/2	SAE 10	DAT008I/E
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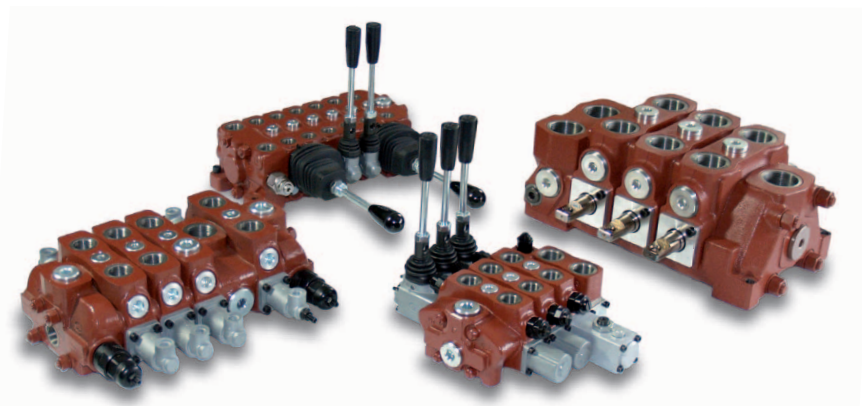
Note/Notes

Le filettature standard si riferiscono agli utilizzi/Standard threads are referred to work ports.

(*): Filettatura metrica su richiesta/Metric thread is available on request.

Comandi/Controls	Tipo/Type																			
	SDM080	SDM081	SD4	SD5	SDM105	SDM110	SDM100	SD11	SDM140	SD14	SD18	DLM140	SDM102	SDM103	SDM122	SDM143	DLM122	DLM142	SDM141	
Meccanico/Mechanical	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Idraulico/Hydraulic	-	-	-	•	-	•	•	•	•	•	•	•	-	-	-	-	-	-	-	•
Pneumatico/Pneumatic	-	-	•	•	-	•	•	•	•	•	•	•	-	-	-	-	-	-	-	•
Elettrico/Electric	-	-	•	•	•	•	•	-	-	-	-	-	-	-	-	-	-	-	-	•
Elettroidraulico/Electro-hydraulic	-	-	•	•	-	•	•	•	•	•	•	•	-	-	-	•	-	-	-	•
Elettropneumatico/Electro-pneumatic	-	-	-	•	-	•	•	•	•	•	•	•	-	-	-	-	-	-	-	-
Meccatronico/Mechatronic	-	-	-	-	-	-	-	-	•	-	-	•	-	-	•	•	•	•	•	•

Componibili - Sectional valves



Tipo Type	Portata nominale Nominal flow (l/min - US gpm)	Pressione massima Max. pressure (bar - psi)	Numero sezioni Nr. of sections	Filettature standard* Standard threads*		Catalogo di riferimento Reference catalogue
				BSP (ISO 228/1)	UN-UNF (ISO 11926-1)	
SD6	45 - 12	315 - 4600	fino a 12 - up to 12	G 3/8	SAE 6	DBU001I/E
SDS100	60 - 16	315 - 4600	fino a 10 - up to 10	G 3/8	SAE 8	DBT001I/E
SD8	80 - 21	315 - 4600	fino a 12 - up to 12	G 1/2	SAE 8	DBU002I/E
SDS150	90 - 24	315 - 4600	fino a 12 - up to 12	G 1/2	SAE 10	DBC003I/E
SDS180	160 - 42	315 - 4600	fino a 12 - up to 12	G 3/4	SAE 12	D1WWEB01I/E
SD25	240 - 63	315 - 4600	fino a 12 - up to 12	G 1	SAE 16	DBC005I/E
SDS400	400 - 105	315 - 4600	fino a 10 - up to 10	G 1 1/4**	SAE 20**	D1WWCB02I/E
Configurazione Load-Sensing - Load-Sensing valve configuration						
DLS7	60 - 16	315 - 4600	fino a 10 - up to 10	G 3/8	SAE 6	DBU001I/E
DLS8	100 - 26	315 - 4600	fino a 10 - up to 10	G 1/2	SAE 8	DBU002I/E
DLS180	160 - 42	315 - 4600	fino a 12 - up to 12	G 3/4	SAE 12	D1WWEB01I/E

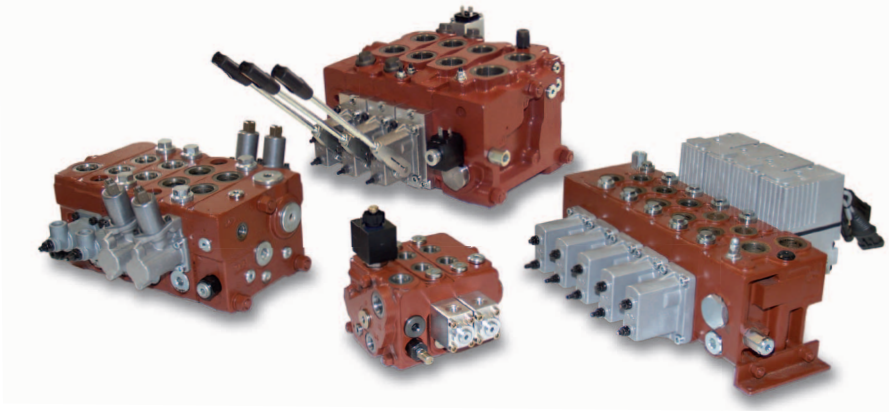
Note/Notes

Le filettature standard si riferiscono agli utilizzi/Standard threads are referred to work ports.

(*): Filettatura metrica su richiesta/Metric thread is available on request.

(**): Disponibile con collegamento a flangia secondo ISO6162-1 e SAE J518/Flange connection according to ISO6162-1 and SAE J518 is available.

Comandi/Controls	Tipo/Type									
	SD6	SDS100	SD8	SDS150	SDS180	SD25	SDS400	DLS7	DLS8	DLS180
Meccanico/Mechanical	•	•	•	•	•	•	•	•	•	•
Idraulico/Hydraulic	•	•	•	•	•	•	•	•	•	•
Pneumatico/Pneumatic	•	•	•	•	•	•	-	•	-	-
Elettrico/Electric	•	•	•	-	-	-	-	•	-	-
Elettroidraulico/Electro-hydraulic	•	•	•	•	•	•	-	•	-	-
Elettropneumatico/Electro-pneumatic	•	•	•	•	•	•	-	-	-	-

Load-Sensing pre-compensati e Flow Sharing - Pressure pre-compensated Load-Sensing and Flow Sharing

Distributori Load-Sensing pre-compensati - Pressure pre-compensated Load-Sensing valves

Tipo Type	Portata nominale Nominal flow			Pressione massima Max. pressure	Numero sezioni Nr. of sections	Filettature standard*		Catalogo di riferimento Reference catalogue
	in ingresso on inlet	sugli utilizzi-on ports				BSP (ISO 228/1)	UN-UNF (ISO 11926-1)	
		non compensati not compensated	compensati compensated					
(l/min - US gpm)	(l/min - US gpm)	(l/min - US gpm)						
DPC130	150 - 40	130 - 34	100 - 26	315 - 4600	fino a 10 - up to 10	G 1/2	SAE 10	DDT010I/E
DPC200	260 - 68	240 - 63	200 - 53	420 - 6100	fino a 10 - up to 10	G 1**	SAE 16**	D1WWCD02I/E

Distributori Flow Sharing

Tipo Type	Portata nominale Nominal flow		Pressione massima Max. pressure	Numero sezioni Nr. of sections	Filettature standard*		Catalogo di riferimento Reference catalogue
	in ingresso on inlet	sugli utilizzi on ports			BSP (ISO 228/1)	UN-UNF (ISO 11926-1)	
(l/min - US gpm)	(l/min - US gpm)	(bar - psi)					
PTD DPX050	80 - 21	50 - 13	300 - 4350	fino a 12 - up to 12	G 1/2	SAE 6	D1WWED01I/E
PTD DPX100	120 - 32	90 - 24	300 - 4350	fino a 12 - up to 12	G 3/8	SAE 8	D1WWED01I/E
PTD DPX100HP	120 - 32	90 - 24	420 - 6100	fino a 12 - up to 12	G 3/8	SAE 8	D1WWED01I/E
PTD DPX160	230 - 61	160 - 42	300 - 4350	fino a 10 - up to 10	G 3/4	SAE 12	D1WWED01I/E
PTD DPX160HP	230 - 61	160 - 42	420 - 6100	fino a 10 - up to 10	G 3/4	SAE 12	D1WWED01I/E

Note/Notes

Le filettature standard si riferiscono agli utilizzi/Standard threads are referred to work ports.

(*): Filettatura metrica su richiesta/Metric thread is available on request.

(**): Disponibile con collegamento a flangia secondo ISO6162-1 e SAE J518/Flange connection according to ISO6162-1 and SAE J518 is available.

Comandi/Controls	Tipo/Type						
	DPC130	DPC200	DPX050	DPX100	DPX100HP	DPX160	DPX160HP
Meccanico/Mechanical	●	●	●	●	●	●	●
Idraulico/Hydraulic	●	●	●	●	●	●	●
Pneumatico/Pneumatic	-	-	-	●	●	-	-
Elettrico/Electric	-	-	-	●	●	-	-
Elettroidraulico/Electro-hydraulic	●	●	●	●	●	●	●
Elettropneumatico/Electro-pneumatic	-	-	-	●	●	-	-
Elettroidraulico con elettronica a bordo Electro-hydraulic with electronic on board	●	-	-	●	●	-	-

Deviatori di flusso - Diverter valves


Tipo Type	Portata nominale (condizioni statiche) Nominal flow (static working conditions) (l/min - US gpm)	Pressione nominale (condizioni statiche) Operating pressure (static working conditions) (bar - psi)	Nr. di vie Nr. of ways	Filettature standard Standard threads		Catalogo di riferimento Reference catalogue
				BSP (ISO 228/1)	UN-UNF (ISO 11926-1)	

A comando meccanico rotativo - Mechanical rotary spool control ▲

DH5	60 - 16	315 - 4600	3/4/6/8	G 3/8	SAE 8	DGR002I/E
DH10	90 - 24	315 - 4600	3/4/6/8	G 1/2	SAE 10	DGR002I/E
DH20	140 - 37	315 - 4600	3/4/6/8	G 3/4	SAE 12	DGR002I/E
DH25	200 - 53	250 - 3600	3/4/6/8	G 1	SAE 16	DGR002I/E
DH30	280 - 74	210 - 3050	3/6	G 1 1/2	SAE 24	DGR002I/E

A comando meccanico - Mechanical spool control

DF5	60 - 16	315 - 4600	2/3/6	G 3/8	SAE 8	DGR002I/E
DF10	90 - 24	315 - 4600	2/3/6	G 1/2	SAE 10	DGR002I/E
DF20	140 - 37	315 - 4600	2/3/6	G 3/4	SAE 12	DGR002I/E
DF25	280 - 74	315 - 4600	3	G 1	SAE 16	DGR002I/E

A comando elettrico monoblocco - Solenoid operated monoblock type

DFE052	60 - 16	200/315* - 2900/4600*	2/3/6/8	G 3/8	SAE 8	DGR002I/E
DFE10	90 - 24	200/315* - 2900/4600*	3/6	G 1/2	SAE 10	DGR002I/E
DFE20	140 - 37	200/315* - 2900/4600*	3/6	G 3/4	SAE 12	DGR002I/E

A comando elettrico componibile - Solenoid operated sectional type

DFE080	25 - 6.6	200/315* - 2900/4600*	6/8/10	G 1/4	SAE 4	DGR002I/E
DFE100	50 - 13	200/315* - 2900/4600*	6/8/10	G 3/8	SAE 8	DGR002I/E
DFE140	80 - 21	200/315* - 2900/4600*	6/8/10	G 1/2	SAE 10	DGR002I/E

Specifici per applicazioni su caricatori frontali - Designed for front-loader applications

DFE141	80 - 21	315 - 4600	6/8	G 1/2		DGV005IE
DFE110	90 - 24	200/315* - 2900/4600*	12	G 1/2	SAE 10	DGR002I/E

Specifici per applicazioni sterzature - Designed for steering applications

DFE085	25 - 6.6	210 - 3050	4	G 3/8	SAE 8	D1WWCG01I/E
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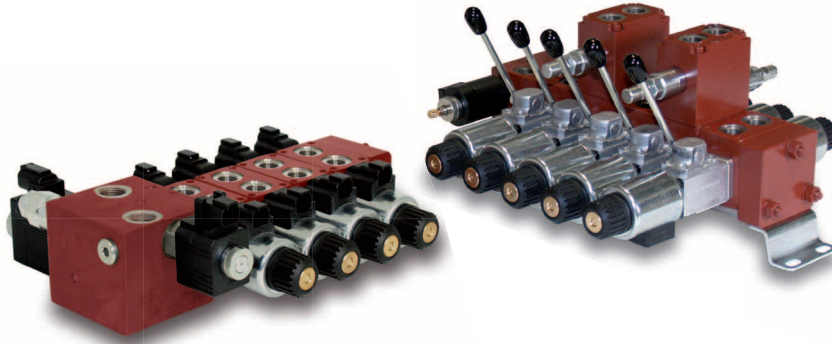
Specifico per selezione logica di comando - Designed for joystick pattern selection

DHV080	10 - 2.6	100 - 1450	8	G 1/4	SAE 4	D1WWEF01I/E
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Note/Notes: (*): Con drenaggio/With drain.

(▲): i deviatori DH possono essere azionati solo in assenza di pressione (max. 25 bar)/DH rotary spool diverter valves can only be operated without pressure (max 25 bar/360 psi).

Direzionali elettrici - *Directional control valves with direct acting solenoid*



Tipo Type	Portata nominale Nominal flow (l/min - US gpm)	Pressione massima Max. pressure (bar - psi)	Numero sezioni Nr. of sections	Filettature standard* Standard threads*		Catalogo di riferimento Reference catalogue
				BSP (ISO 228/1)	UN-UNF (ISO 11926-1)	
SDE030	30 - 8	315 - 4600	fino a 9 - up to 9	G 3/8	SAE 8	D1WWEB02I/E
SDE060	60 - 16	315 - 4600	fino a 9 - up to 9	G 3/8	SAE 8	D1WWEB02I/E

Note/Notes (*):

Le filettature standard si riferiscono agli utilizzi/Standard threads are referred to work ports.

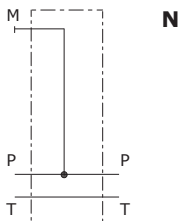
(*): Filettatura metrica su richiesta/Metric thread is available on request.

Molteplicità di fiancate realizzabili su misura per le varie richieste ed applicazioni.

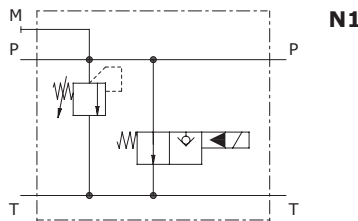
Custom inlet covers are available for different applications.

Sezioni di entrata:

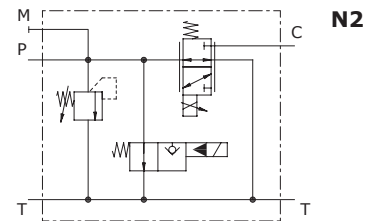
Basic inlet sections:



N senza valvole in ingresso
N without valves



N1 con valvola di massima e valvola di messa a scarico a pilotaggio elettrico
N1 Inlet section with main relief valve and solenoid unloader valve



N2 con valvola di massima e regolatore di portata compensato a 3 vie proporzionale a comando elettrico/manuale
N2 inlet section with main relief valve and compensated flow control with 3 ways proportional manual/solenoid control

Servocomandi e unità di alimentazione - *Pilot control valves and feed units*



Servocomandi idraulici - *Hydraulic pilot control valves*

Tipo <i>Type</i>	Caratteristiche <i>Features</i>	Nr. utilizzi <i>Nr. of ports</i>	Portata nominale <i>Nominal flow</i> (l/min - Us gpm)	Pressione di alimentazione* <i>Inlet pressure*</i> (bar - psi)	Filettature standard** <i>Standard threads**</i> BSP UN-UNF (ISO 228/1) (ISO 11926-1)	
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Con azionamento a leva lineare - *Linear operation type*

SVM100	componibile fino a 10 sezioni, P-T laterali <i>sectional up to 10 sections, side P-T</i>	da 2 a 20 <i>2 to 20</i>	da 5 a 20 <i>1.3 to 5.3</i>	da 30 a 100 <i>435 to 1450</i>	G 1/4	SAE 4
SVM101	componibile fino a 10 sezioni <i>sectional up to 10 sections</i>	da 2 a 20 <i>2 to 20</i>	da 5 a 20 <i>1.3 to 5.3</i>	da 30 a 100 <i>435 to 1450</i>	G 1/4	SAE 4
SVM150	aggancio elettromagnetico <i>electromagnetic detent</i>	2	da 5 a 20 <i>1.3 to 5.3</i>	da 30 a 100 <i>435 to 1450</i>	G 1/4	SAE 4

Con azionamento a joystick - *Joystick operation type*

PTD

NEW

SVM400		4	da 5 a 20 <i>1.3 to 5.3</i>	da 30 a 100 <i>435 to 1450</i>	G 1/4	SAE 4
SVM400-EMD	aggancio elettromagnetico <i>electromagnetic detent</i>	4	da 5 a 20 <i>1.3 to 5.3</i>	da 30 a 100 <i>435 to 1450</i>	G 1/4	SAE 4
SVM405	con sistema di smorzamento <i>With damping system</i>	4	da 5 a 20 <i>1.3 to 5.3</i>	da 30 a 100 <i>435 to 1450</i>	G 1/4	SAE 4
SVM430		4	da 5 a 20 <i>1.3 to 5.3</i>	da 30 a 100 <i>435 to 1450</i>	G 1/4	SAE 4
SVM431		4	da 5 a 20 <i>1.3 to 5.3</i>	da 30 a 100 <i>435 to 1450</i>	G 1/4	SAE 4
SVM432		4	da 5 a 20 <i>1.3 to 5.3</i>	da 30 a 100 <i>435 to 1450</i>	G 1/4	SAE 4
SVM450	aggancio elettromagnetico <i>electromagnetic detent</i>	4	da 5 a 20 <i>1.3 to 5.3</i>	da 30 a 100 <i>435 to 1450</i>	G 1/4	SAE 4

Con azionamento combinato - *Linear and joystick operation type*

SVM600	aggancio elettromagnetico <i>electromagnetic detent</i>	6	da 5 a 20 <i>1.3 to 5.3</i>	da 30 a 100 <i>435 to 1450</i>	G 1/4	SAE 4
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Con azionamento a pedale - *Foot-pedal operation type*

PTD

SVM500	pedale basculante - <i>rocker pedal</i>	2	da 5 a 20 <i>1.3 to 5.3</i>	da 30 a 100 <i>435 to 1450</i>	G 1/4	SAE 4
SVM510	pedale singolo, P-T laterali <i>single pedal, side P-T</i>	1	da 5 a 20 <i>1.3 to 5.3</i>	da 30 a 100 <i>435 to 1450</i>	G 1/4	SAE 4
SVM520	pedale doppio, P-T laterali <i>double pedal, side P-T</i>	2	da 5 a 20 <i>1.3 to 5.3</i>	da 30 a 100 <i>435 to 1450</i>	G 1/4	SAE 4
SVM521	pedale doppio, P-T inferiori <i>double pedal, bottom P-T</i>	2	da 5 a 20 <i>1.3 to 5.3</i>	da 30 a 100 <i>435 to 1450</i>	G 1/4	SAE 4
SVM540	doppio pedale basculante, bocche laterali <i>double rocker pedal, side ports</i>	4	da 5 a 20 <i>1.3 to 5.3</i>	da 30 a 100 <i>435 to 1450</i>	G 1/4	SAE 4

Con azionamenti vari - *Severall operation type*

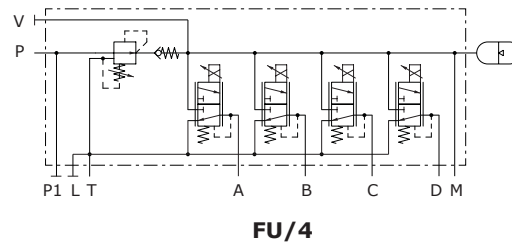
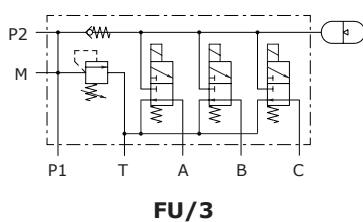
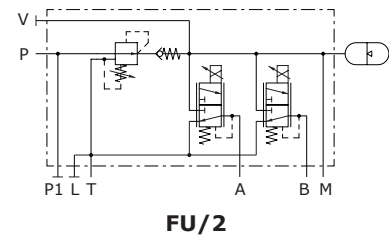
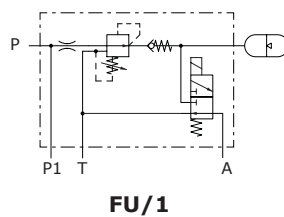
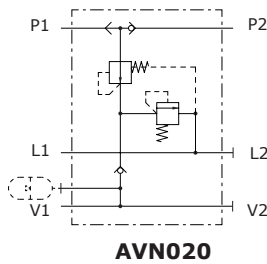
SVM700	a volantino, P-T laterali <i>hand wheel, side P-T</i>	1	da 5 a 20 <i>1.3 to 5.3</i>	da 30 a 100 <i>435 to 1450</i>	G 1/4	SAE 4
SVM710	a spintore, P-T laterali <i>pusher, side P-T</i>	1	da 5 a 20 <i>1.3 to 5.3</i>	da 30 a 100 <i>435 to 1450</i>	G 1/4	SAE 4

Note/Notes: Dove non diversamente specificato, le bocche sono posizionate sul lato inferiore del comando/Ports are positioned on the pilot control valve bottom side if not differently specified. (*): Pmax = 30 bar, con aggancio elettromagnetico/Pmax = 30 bar/435 psi with electromagnetic detent. (**): filettature metriche disponibili a richiesta/Metric threads are available on request. Catalogo di riferimento: D1WWEF01I - Ref. catalogue: D1WWEF01E

Servocomandi e unità di alimentazione - *Pilot control valves and feed units*
Unità di alimentazione - *Feed units*

Tipo <i>Type</i>	Nr. max ingressi <i>Nr. of inlets</i>	Pressione ingresso <i>Max. input pressure</i> (bar - psi)	Pressione secondaria <i>Secondary pressure</i> (bar - psi)	Nr. uscite <i>Nr. of outlets</i>	Capacità accumulatore <i>Accumulator capacity</i> (cm ³ - in ³)
AVN020	2	350 - 5100	30/40/50 435/580/725	-	350/500/750/900/1500 21.35/30.51/45.77/54.92/91.54
FU/1	2	350 - 5100	-	1	350 - 21.35
FU/2	2	350 - 5100	-	2	350 - 21.35
FU/3	2	350 - 5100	-	3	350 - 21.35
FU/4	2	350 - 5100	-	4	350 - 21.35

Catalogo di riferimento AVN: D1WWEF01I - AVN ref. catalogue: D1WWEF01E


Servocomandi pneumatici - *Pneumatic pilot control valves*

Tipo <i>Type</i>	Esecuzione <i>Configuration</i>	Nr. utilizzi <i>Nr. of ports</i>	Posizione bocche <i>Ports location</i>		Portata nominale <i>Nominal flow</i> (dm ³ /min - ft ³ /min)	Pressione di alimentazione <i>Inlet pressure</i> (bar - psi)	Filettature standard <i>Standard threads</i> NPTF (SAE J476A)
			P-T	Utilizzi - Users			
Con azionamento a joystick - <i>Joystick operation type</i>							
SP01	monoblocco <i>monoblock</i>	4	inferiore <i>bottom</i>	inferiore <i>bottom</i>	350 - 12.4	10 - 145	1/8-27
Con azionamento a leva lineare - <i>Linear operation type</i>							
SP10	monoblocco <i>monoblock</i>	2	laterale <i>side</i>	inferiore <i>bottom</i>	350 - 12.4	10 - 145	1/8-27
SP30	componibile fino a 8 sezioni <i>sectional up to 8 sections</i>	da 4 a 16 <i>4 to 16</i>	laterale <i>side</i>	inferiore <i>bottom</i>	350 - 12.4	10 - 145	1/8-27

Catalogo di riferimento: DFC020I - Ref. catalogue: DFC020E

Comandi meccanici a cavo flessibile - *Flexible cable remote controls*

Tipo <i>Type</i>	Esecuzione <i>Configuration</i>	Nr. di sezioni <i>Nr. of sections</i>	Interasse sezioni <i>Section distance</i> (mm - in)	Catalogo di riferimento <i>Reference catalogue</i>
TCC5	componibile - <i>sectional</i>	fino a 10 - <i>up to 10</i>	40 - 1.57	D1WWEF02I/E
TCC10	componibile - <i>sectional</i>	fino a 10 - <i>up to 10</i>	45 - 1.77	D1WWEF02I/E
SCF031	monoblocco - <i>monoblock</i>	2	-	D1WWEF02I/E

Note/Notes: cavo flessibile disponibile/flexible cables are available in different lengths.

Componenti elettronici e sistemi PHC - Electronic components and PHC systems

Sistemi completi PHC - Complete PHC systems

Tipo Type	Nr. funzioni proporzionali Proportional functions Nr.	Sistema potenziometrico/raziometrico Ratiometric/potentiometric system	Sistema CAN bus CAN bus system	Unità di comando Input devices	Unità di controllo Digital control unit	Cablaggi Harnesses
PHC400F	4	•	-	AJW	CED400X	•
PHC210C	2	-	•	CJW	-	•
PHC250C	2	-	•	CJW	CED040	•
PHC251C	2	-	•	CJW	CED252	•
PHC400C	4	-	•	CJW	CED400X	•
PHC640C	6	-	•	CJW	CED400X	•
PHC400P	4	•	-	MDN142	CED400X	•

Catalogo di riferimento: D1WWEE01I - Ref. catalogue: D1WWEE01E

Servocomandi elettronici - Electronic joysticks

Caratteristiche Features	MDN	AJW	CJW
Analogico - Analogic	•	•	-
CAN bus	-	-	•
Segnale di uscita - Signal range	da 50% a 75% V batteria 50% to 75% V battery	da 0.5 a 4.5 V 0.5 to 4.5 V	-
Assi proporzionali - Prop. axis	1	da 2 a 4 - 2 to 4	da 2 a 5 - 2 to 5
Pulsanti - Push-buttons	-	fino a 3 - up to 3	fino a 6 - up to 6
Sensore di centro - Center tap	•	-	-
Gamma impugnature - Handles range	-	•	•

Catalogo di riferimento: D1WWEE01I - Ref. catalogue: D1WWEE01E

Centraline elettroniche - Digital control units

Caratteristiche Features	CED252	CED040	CED100X	CED160	CED400X
Ingressi analogici - analogic inlet	11	3	4	3	4
Ingressi digitali - digital inlet	1	6	6	6	6
Uscite proporzionali - proportional output	5	-	2	2	8
Uscite ON/OFF - ON/OFF outlet	5	4	-	6	-
CAN bus	•	•	•	•	•
CAN open	•	•	•	•	•
SAEJ1939	•	•	•	•	•
RS232	•	-	•	-	•
ISOBUS	•	-	-	-	-

NEW

NEW

Catalogo di riferimento: D1WWEE01I - Ref. catalogue: D1WWEE01E

Impugnature e accessori - *Handles and accessories*

Impugnature e aste leva - *Handles and handlevs*

Tipo Type	Funzioni ON/OFF * ON/OFF functions *		Funzioni proporzionali * Proportional functions *	Uomo presente "Dead man" switch	Catalogo di riferimento Reference catalogue
	pulsante - <i>push-button</i>	rockers			
Serie 10 - 10 series	1	1	-	-	D1WWEH01I/E
Serie J - J series	1	1	-	-	D1WWEH01I/E
Serie V - V series	4	2	-	-	D1WWEH01I/E
Serie H - H series	8	2	1	•	D1WWEH01I/E
Serie P - P series	8	3	3	•	D1WWEH01I/E
Serie S - S series	3	-	1	-	D1WWEH01I/E

Note/Notes: Le impugnature configurate con dispositivi elettrici sono progettate per essere alimentate esclusivamente in tensione continua; per le caratteristiche dei dispositivi di comando, richiedere la documentazione tecnica relativa/*handles with electric components accept direct current only. For control devices features, kindly ask for related technical catalogue.*

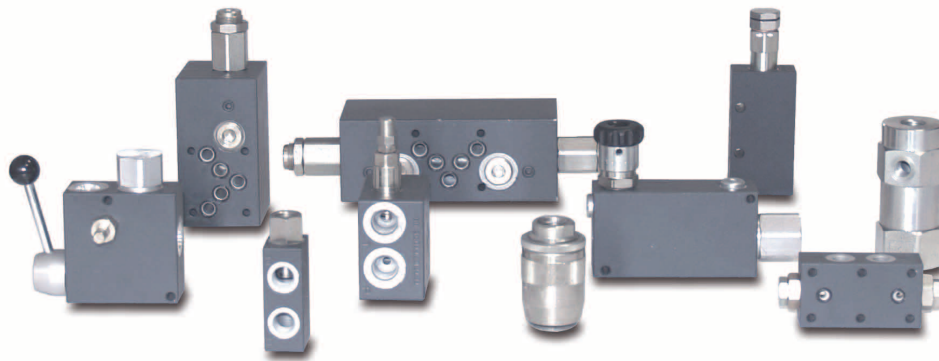
(*): Si intende il numero massimo di funzioni/Ref. to max. number of functions.


Sensori - *Sensors*

Tipo Type	Tensione nominale Voltage rating	Indice di protezione Weather protection	Interruttore a sfera Ball switch	Effetto hall Hall effect	Uscita digitale Digital output	Uscita lineare Linear output	Portata uscita Output load
8MG	da 5 a 24 VDC 5 to 24 VDC	IP67	•	-	•	-	da 10 mA a 5A 10 mA to 5A
SPSD	da 9 a 32 VDC 9 to 32 VDC	IP67/IP69K	-	•	•	-	6 mA
SPSL	da 9 a 32 VDC o 5 VDC 9 to 32 VDC or 5 VDC	IP67/IP69K	-	•	-	•	1 mA

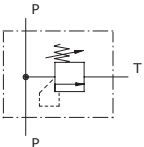
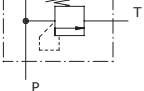
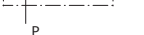
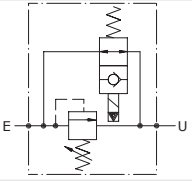
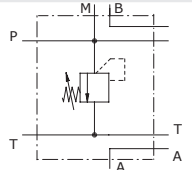


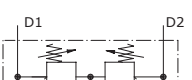
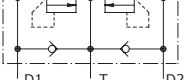

Catalogo di riferimento: D1WWE01I - Ref. catalogue: D1WWE01E

Valvole con corpo - Parts in body



Valvole limitatrici di pressione - Pressure relief valves



Pressione massima - Max. pressure: 350 bar - 5100 psi

Tipo Type	Schema idraulico Hydraulic circuit	Caratteristiche Features	Portata nominale (fino a) Nominal flow (up to) (l/min - US gpm)
VMP/B/L		azionamento diretto - <i>direct acting</i>	100 - 40
VMPP/B/L		azionamento pilotato - <i>pilot operated</i>	250 - 66
VMPD/B		azionamento differenziale - <i>differential piston type</i>	180 - 48
VMP/VE		pilotate con venting <i>electric venting</i>	250 - 66
PBL../VMP		piastra base con VMP cetop 3 / cetop 5 <i>subplate with VMP cetop 3 / cetop 5</i>	60 - 16
VAIL		antiurto diretta <i>direct acting, shock-resistant</i>	180 - 48
VADDL		antiurto differenziale <i>differential piston type, shock-resistant</i>	220 - 58
VAIL/VA		antiurto, anticavitazione, diretta <i>shock-resistant, anticavitation, direct acting</i>	100 - 26
VADDL/VA		antiurto, anticavitazione, differenziale <i>shock-resistant, anticavitation, differential</i>	180 - 48
VAA/RU/DL		antiurto, anticavitazione, regolazione unica <i>shock-resistant, anticavitation, single adjustment</i>	200 - 53

Catalogo di riferimento: D1WWEM01I - Ref. catalogue: D1WWEM01E

Valvole riduttrici di pressione - Pressure reducing valves

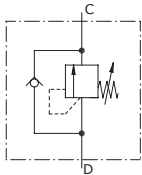
Pressione massima - Max. pressure: 350 bar - 5100 psi

Tipo Type	Schema idraulico Hydraulic circuit	Caratteristiche Features	Portata nominale (fino a) Nominal flow (up to) (l/min - US gpm)
VRPRL		con funzione di relieving sull'utilizzo e ritorno libero <i>with relieving and reverse free-flow check</i>	50 - 13
VRPRL/U		con funzione di relieving sull'utilizzo e unidirezionale <i>with relieving</i>	50 - 13

Catalogo di riferimento: D1WWEN01I - Ref. catalogue: D1WWEN01E

Valvole con corpo - Parts in body
Valvole di sequenza - Sequence valves

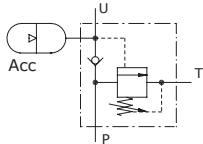
Pressione massima - Max. pressure: 350 bar - 5100 psi

Tipo Type	Schema idraulico Hydraulic circuit	Caratteristiche Features	Portata nominale (fino a) Nominal flow (up to) (l/min - US gpm)
VDSRL		azionamento diretto direct acting	120 - 32
VDSRL../APP		diretto ad annullamento della pressione primaria back-pressure proof	120 - 32
VDSDB..		differenziale differential	200 - 53

Catalogo di riferimento: D1WWE001I - Ref. catalogue: D1WWE001E

Valvole di disinserzione automatica - Unloader valve, built-in check, face mounting

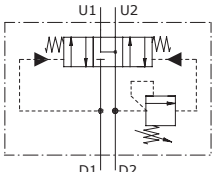
Pressione massima - Max. pressure: 350 bar - 5100 psi

Tipo Type	Schema idraulico Hydraulic circuit	Caratteristiche Features	Portata nominale (fino a) Nominal flow (up to) (l/min - US gpm)
VDA		in linea single acting	100 - 26
VDA/FL		flangiata face mounting	50 - 13

Catalogo di riferimento: D1WWE001I - Ref. catalogue: D1WWE001E

Valvole rigeneratrici di circuito - Regenerative valves

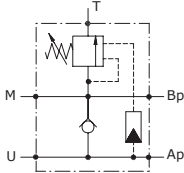
Pressione massima - Max. pressure: 350 bar - 5100 psi

Tipo Type	Schema idraulico Hydraulic circuit	Caratteristiche Features	Portata nominale (fino a) Nominal flow (up to) (l/min - US gpm)
VRCL/KD		in linea single acting	150 - 40

Catalogo di riferimento: D1WWE001I - Ref. catalogue: D1WWE001E


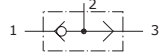
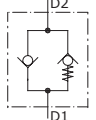

Valvole di esclusione alta-bassa pressione - Two pump "hi-low" unloading valves

Pressione massima - Max. pressure: 350 bar - 5100 psi

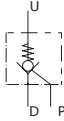
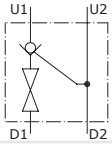
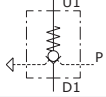
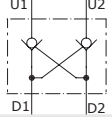
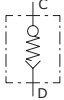
Tipo Type	Schema idraulico Hydraulic circuit	Caratteristiche Features	Portata nominale (fino a) Nominal flow (up to) (l/min - US gpm)
VEP		in linea single acting	250 - 66
VEP/FC		flangiata su pompa face mounting on gear pump	150 - 40
VEP/FL		flangiatura cetop 3-5-7 cetop base 3-5-7	100 - 26

Catalogo di riferimento: D1WWE001I - Ref. catalogue: D1WWE001E

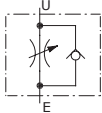
Valvole con corpo - Parts in body

Valvole unidirezionali - Check valves				
Tipo Type	Schema idraulico Hydraulic circuit	Caratteristiche Features	Portata nominale (fino a) Nominal flow (up to) (l/min - US gpm)	Pressione massima Max. pressure (bar - psi)
VUS		a sfera - <i>ball type</i>	350 - 92	400 - 5800
VUC		a cono - <i>poppet type</i>	350 - 92	400 - 5800
VUS/INC		da incasso <i>cartridge check valves</i>	80 - 21	350 - 5100
VT		acciaio - <i>steel</i>	150 - 40	400 - 5800
VBD		bidirezionali - <i>double acting</i>	70 - 18	350 - 5100
VBD/VP		bidirezionali - <i>double acting</i>	70 - 18	350 - 5100
VUI		tenuta a cono - <i>poppet type</i>	160 - 42	400 - 5800

Catalogo di riferimento: D1WWEP01I - Ref. catalogue: D1WWEP01E

Valvole di blocco pilotate - Pilot operated check valves				
Pressione massima - Max. pressure: 350 bar - 5100 psi				
Tipo Type	Schema idraulico Hydraulic circuit	Caratteristiche Features	Portata nominale (fino a) Nominal flow (up to) (l/min - US gpm)	
VUPSL		single in linea 3 attacchi <i>single acting 3 ports</i>	150 - 40	
VBPSL-VBPSL/T-VBPSL/SO		single in linea - <i>single acting</i>	100 - 26	
VBPSF		single in linea flangiate <i>single acting, face mounting</i>	100 - 26	
VBPSL/R		single con rubinetto <i>single acting with shut-off valves</i>	50 - 13	
VBPSL/PS/..		single insensibili alla contropressione <i>external pilot operated type</i>	50 - 13	
VBPDL-VBPDL/T-VBPDL/SO		doppie in linea - <i>double acting</i>	100 - 26	
VBPDF		doppie flangiate <i>double acting, face mounting</i>	100 - 26	
VB/M - VB/F		paracadute con colonnetta M-F o F-F <i>hose burst valve with M-F or F-F housing</i>	150 - 40	

Catalogo di riferimento: D1WWEP01I - Ref. catalogue: D1WWEP01E

Valvole regolatrici di portata non compensate - Needle valves				
Pressione massima - Max. pressure: 450 bar - 6500 psi				
Tipo Type	Schema idraulico Hydraulic circuit	Caratteristiche Features	Portata nominale (fino a) Nominal flow (up to) (l/min - US gpm)	
VSRU		ritenuta a sfera - <i>ball type</i>	150 - 40	
VSRU/C		ritenuta a cono - <i>poppet type</i>	250 - 66	
VSRB		bidirezionale - <i>double acting</i>	250 - 66	

Catalogo di riferimento: D1WWET01I - Ref. catalogue: D1WWET01E

Valvole con corpo - Parts in body
Valvole regolatrici di portata compensate - Flow control pressure compensated valves

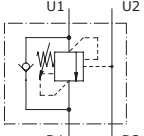
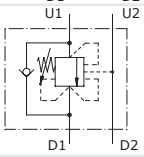
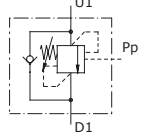
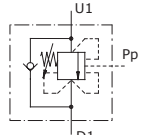
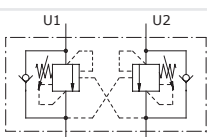
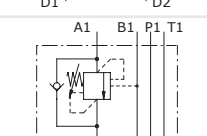
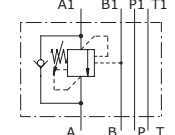
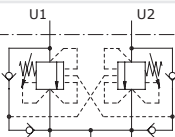
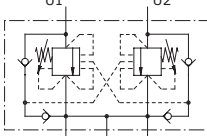
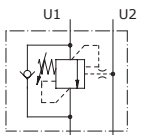
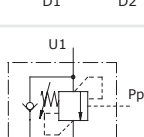
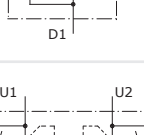
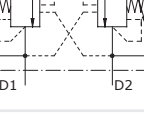
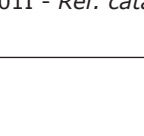

Pressione massima - Max. pressure: 350 bar - 5100 psi

Tipo Type	Schema idraulico Hydraulic circuit	Caratteristiche Features	Portata nominale (fino a) Nominal flow (up to) (l/min - US gpm)
VPR/2/RL VPR/2/U		a 2 vie compensate 2 ways, variable constant flow	150 - 40
VPF/3/EP		a 3 vie con eccedenza in pressione con portata in "c" fissa 3 ways, exceeding flow to pressure with constant flow in "c"	150 - 40
VPF/3/EP...+VMP		a 3 vie con eccedenza in pressione con VMP 3 ways, exceeding flow to pressure with VMP	150 - 40
VPR/3/ET		a 3 vie - 3 ways	350 - 92
VPR/3/ET/RL		a 3 vie con ritorno libero 3 ways with reverse free - flow check	350 - 92
VPR/3/ET/VMP		a 3 vie con VMP 3 ways with VMP	150 - 40
VPR/3/ET/RL/VMP		a 3 vie con ritorno libero 3 ways with reverse free - flow check	150 - 40
VPR/3/EP		a 3 vie con eccedenza in pressione 3 ways, exceeding flow to pressure	450 - 118
VPR/3/ET.../ VMP+VE		a 3 vie con venting 3 ways, electric venting	240 - 63
VPR/3/EP...VMP+VE		a 3 vie con eccedenza in pressione con venting 3 ways, exceeding flow to pressure electric venting	450 - 118
VPR/3/EP... VMP+VE/LPD		a 3 vie con eccedenza in pressione con venting 3 ways, exceeding flow to pressure electric venting	450 - 118
VDR/F-VDR/M		regolatrici di discesa colonnetta M-F o F-F for descent control M-F or F-F	150 - 40
VDFR		divisori di flusso flow divider - combiners	150 - 40
VDR/CO VDR/CO/M VDR/CO/F		taratura fissa fixed setting	13 - 3.4

Catalogo di riferimento: D1WWEU01I - Ref. catalogue: D1WWEU01E

Valvole con corpo - Parts in body

Valvole di controllo movimento - Counterbalance (overcenter) valves

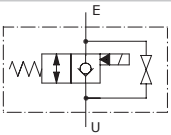
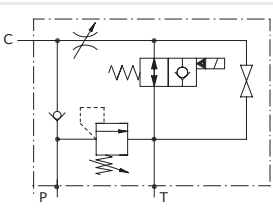
Tipo Type	Schema idraulico Hydraulic circuit	Caratteristiche Features	Portata nominale (fino a) Nominal flow (up to) (l/min - US gpm)	Press. massima Max. pressure (bar - psi)
VOSL... VOSL/SC...		single in linea single acting	180 - 48	350 - 5100
VOSL/CC... VOSL/SC/CC...		centro chiuso closed center	180 - 48	350 - 5100
VOSLP... VOSLP/SC...		pilotaggio esterno external pilot	180 - 48	350 - 5100
VOSLP/CC... VOSLP/SC/CC...		pilotaggio esterno external pilot	180 - 48	350 - 5100
VODL... VODL/SC...		doppie in linea double acting	180 - 48	350 - 5100
VODL/CC VODL/SC/CC		doppie in linea double acting	180 - 48	350 - 5100
VOSL/ML		modulari cetop 3-5 sandwich mounting cetop 3-5	70 - 18	350 - 5100
VODL/ML		modulari cetop 3-5 sandwich mounting cetop 3-5	70 - 18	350 - 5100
VABAL VABAL/SF		anticavitazione anticavitation	180 - 48	350 - 5100
VOSL/N1116 VOSL/N1516		load sensitive	150 - 40	350 - 5100
VOSL/R1116		relief compensated	60 - 16	350 - 5100
VOSL/V1116 VOSL/V1516		vented	150 - 40	350 - 5100
VOSLP/N1116		load sensitive con pilotaggio esterno load sensitive with external pilot	60 - 16	350 - 5100
VOSLP/R1116		relief compensated con pilotaggio esterno relief compensated with external pilot	60 - 16	350 - 5100
VODL/N1116 VODL/N1516/CS		load sensitive	150 - 40	350 - 5100
VODL/R1116		relief compensated	60 - 16	350 - 5100
VODL/V1116/CS VODL/V1516/CS		vented	150 - 40	350 - 5100

Catalogo di riferimento: D1WVER01I - Ref. catalogue: D1WVER01E

Valvole con corpo - Parts in body

Valvole direzionali a solenoide - *Directional solenoid valves*

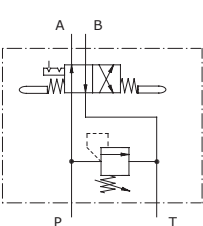
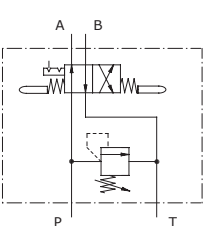
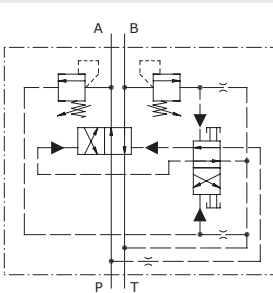
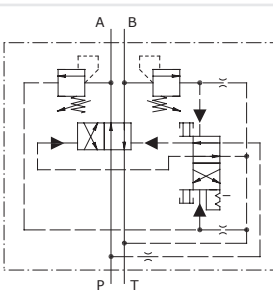
Pressione massima - *Max. pressure: 350 bar - 5100 psi*

Tipo <i>Type</i>	Schema idraulico <i>Hydraulic circuit</i>	Caratteristiche <i>Features</i>	Portata nominale (fino a) <i>Nominal flow (up to)</i> (l/min - US gpm)
VE/B		con emergenza <i>with emergency</i>	160 - 42
VE/B/VMP/VUI/SR		per controllo cilindri a semplice effetto <i>for single acting cylinder</i>	150 - 40

Catalogo di riferimento: D1WWES01I - *Ref. catalogue: D1WWES01E*

Invertitori automatici - *Automatic reversing valves*

Pressione massima - *Max. pressure: 210 bar - 3050 psi*

Tipo <i>Type</i>	Schema idraulico <i>Hydraulic circuit</i>	Caratteristiche <i>Features</i>	Portata nominale (fino a) <i>Nominal flow (up to)</i> (l/min - US gpm)
SD4/IAM		meccanico in linea <i>mechanical control</i>	35 - 9.2
SD11/IAM		meccanico in linea <i>mechanical control</i>	65 - 17
VIA/AP/....		idraulico flangiato cetop 3 - 5 <i>hydraulic face mounting cetop 3 - 5</i>	60 - 16
VIA/AP CMEB		idraulico e meccanico in linea <i>mechanical and hydraulic control in line</i>	60 - 16

Catalogo di riferimento: D1WWE001I - *Ref. catalogue: D1WWE001E*

Cartucce cavità SAE - SAE cartridge valves



Valvole limitatrici di pressione - Pressure relief valves

Pressione massima - Max. pressure: 350 bar - 5100 psi

Tipo Type	Cavità SAE SAE cavity	Schema idraulico Hydraulic circuit	Caratteristiche Features	Portata nominale (fino a) Nominal flow (up to) (l/min - US gpm)
MC	8-10-12	MC	azionamento diretto - <i>direct acting</i>	100 - 26
MG	10-12		azionamento differenziale - <i>differential</i>	100 - 26
MC..Y	8	MC..T	proporzionale (NA) - <i>proportional (NO)</i>	1 - 0.30
MC..T	10		proporzionale (NC) - <i>proportional (NC)</i>	3 - 0.79
MC..X	10		proporzionale (NA) - <i>proportional (NO)</i>	3.5 - 0.92
MP..A	10-12-16	MP..A	azionamento pilotato - <i>pilot operated</i>	180 - 48
MP..Y	16		azionamento pilotato (NA) - <i>pilot operated (NO)</i>	150 - 40
MP..T	10-12		azionamento pilotato (NC) - <i>pilot operated (NC)</i>	120 - 31.70
MP..X	10-12		azionamento pilotato (NA) - <i>pilot operated (NO)</i>	120 - 31.70
MD..M	10-12		valvola diretta smorzata <i>direct valves, damped</i>	100 - 26

PTD

Catalogo di riferimento: D1WWEI01I - Ref. catalogue: D1WWEI01E

Valvole riduttrici di pressione - Pressure reducing valves

Tipo Type	Cavità SAE SAE cavity	Schema idraulico Hydraulic circuit	Caratteristiche Features	Portata nominale (fino a) Nominal flow (up to) (l/min - US gpm)	Pressione massima Max. pressure (bar - psi)
RB	8-10		diretta senza funzione di relieving <i>direct acting without relieving</i>	30 - 8	350 - 5100
RD	8-10		diretta con funzione di relieving <i>direct acting with relieving</i>	30 - 8	350 - 5100
RD..W	8	RD..W	diretta con funzione di relieving (NA) <i>direct acting with relieving (NO)</i>	4 - 1	350 - 5100
RD..T	8		diretta con funzione di relieving (NA) <i>direct acting with relieving (NO)</i>	4 - 1	210 - 3050
RD..S	8		diretta con funzione di relieving (NA) <i>direct acting with relieving (NO)</i>	12 - 3	210 - 3050
RM..A	10-12-16	RM..A	pilotata senza funzione di relieving <i>pilot operated without relieving</i>	150 - 40	350 - 5100
RP..A	10-12-16		pilotata con funzione di relieving <i>pilot operated with relieving</i>	150 - 40	350 - 5100
RM..W	10-12-16	RM..W	pilotata senza funzione di relieving (NA) <i>pilot operated without relieving (NO)</i>	150 - 40	350 - 5100
RP..W	10-12-16		pilotata con funzione di relieving (NA) <i>pilot operated with relieving (NO)</i>	150 - 40	350 - 5100
RP..X	8		pilotata con funzione di relieving (NA) <i>pilot operated with relieving (NO)</i>	15 - 4	350 - 5100

Catalogo di riferimento: D1WWEI01I - Ref. catalogue: D1WWEI01E

Cartucce cavità SAE - SAE cartridge valves

Valvole di sequenza - Sequence valves					
Tipo Type	Cavità SAE SAE cavity	Schema idraulico Hydraulic circuit	Caratteristiche Features	Portata nominale (fino a) Nominal flow (up to) (l/min - US gpm)	Pressione massima Max. pressure (bar - psi)
SE	8-10		pilotaggio esterno <i>external pilot</i>	20 - 5	210 - 3050
SG	12		pilotaggio esterno e drenaggio esterni <i>external pilot and drain</i>	50 - 13	300 - 4350
SW	10-12-16		messa a scarico <i>kick down</i>	180 - 48	350 - 5100
SP..A	10			50 - 13	350 - 5100

Catalogo di riferimento: D1WWEI01I - Ref. catalogue: D1WWEI01E

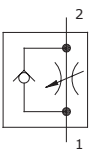
Valvole unidirezionali - Check valves					
Tipo Type	Cavità SAE SAE cavity	Schema idraulico Hydraulic circuit	Caratteristiche Features	Portata nominale (fino a) Nominal flow (up to) (l/min - US gpm)	Pressione massima Max. pressure (bar - psi)
UC	8-10-12-16		tenuta a cono <i>poppet type</i>	100 - 26	350 - 5100
UT	8-10		valvola di commutazione <i>shuttle valves</i>	20 - 5	350 - 5100

Catalogo di riferimento: D1WWEI01I - Ref. catalogue: D1WWEI01E

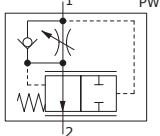
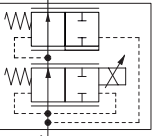
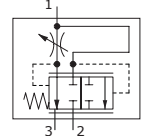
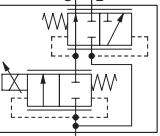
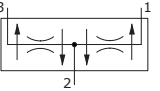
Valvole di blocco pilotate - Pilot operated check valves					
Pressione massima - Max. pressure: 350 bar - 5100 psi					
Tipo Type	Cavità SAE SAE cavity	Schema idraulico Hydraulic circuit	Rapporti di pilotaggio disponibili Available pilot ratio	Portata nominale (fino a) Nominal flow (up to) (l/min - US gpm)	
BC..A	8-10-12-16		1:3 - 1:4	100 - 26	
BC..C	10			60 - 16	
BC..B	10-12-16		pilotata in chiusura <i>pilot to close</i>	100 - 26	

Catalogo di riferimento: D1WWEI01I - Ref. catalogue: D1WWEI01E

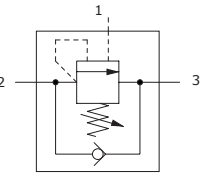
Cartucce cavità SAE - SAE cartridge valves

Valvole regolatrici di portata non compensate - Needle valves				
Pressione massima - Max. pressure: 350 bar - 5100 psi				
Tipo Type	Cavità SAE SAE cavity	Schema idraulico Hydraulic circuit	Caratteristiche Features	Portata nominale (fino a) Nominal flow (up to) (l/min - US gpm)
NB	8-10-12-16		disponibili versioni sensibilizzate available with different metering spool	100 - 26
NU	8-10-12-16		disponibili versioni sensibilizzate available with different metering spool	100 - 26
NT	8-10-12-16		disponibili versioni sensibilizzate available with different metering spool	100 - 26

Catalogo di riferimento: D1WWEI01I - Ref. catalogue: D1WWEI01E

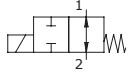
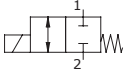
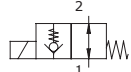
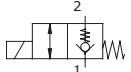
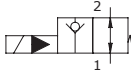
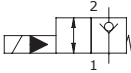
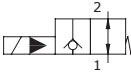
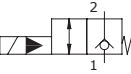
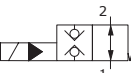
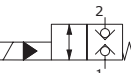
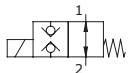
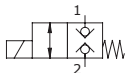
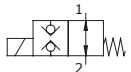
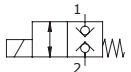
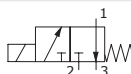
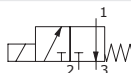
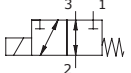
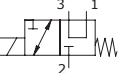
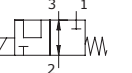
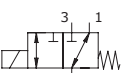
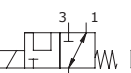
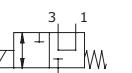
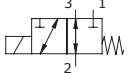
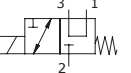
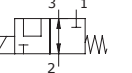
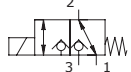
Valvole regolatrici di portata compensate - Flow control pressure compensated valves					
Tipo Type	Cavità SAE SAE cavity	Schema idraulico Hydraulic circuit	Caratteristiche Features	Portata nominale (fino a) Nominal flow (up to) (l/min - US gpm)	Pressione massima Max. pressure (bar - psi)
PW-PU	8-10-12-16		disponibili versioni sensibilizzate available with different metering spool	90 - 24	350 - 5100
PU..X	8-10-12-16		a 2 vie 2 ways	90 - 24	315 - 4600
PP	8-10-12-16		disponibili versioni sensibilizzate available with different metering spool	90 - 24	350 - 5100
PP..X	8-10-12-16		con eccedenza in pressione exceeding flow to pressure	90 - 24	315 - 4600
PD	10-12-16		divisore di flusso flow divider	150 - 40	210 - 3050

Catalogo di riferimento: D1WWEI01I - Ref. catalogue: D1WWEI01E

Valvole di controllo movimento - Counterbalance (overcenter) valves				
Pressione massima - Max. pressure: 350 bar - 5100 psi				
Tipo Type	Cavità SAE SAE cavity	Schema idraulico Hydraulic circuit	Caratteristiche Features	Portata nominale (fino a) Nominal flow (up to) (l/min - US gpm)
CA	10-12-16			90 - 24
CC	10-12-16-20		insensibile alle contropressioni not affected by back-pressure	150 - 40

Catalogo di riferimento: D1WWEI01I - Ref. catalogue: D1WWEI01E

Cartucce cavità SAE - SAE cartridge valves

Valvole direzionali a solenoide - Directional solenoid valves						
Tipo Type	Cavità SAE SAE cavity	Schema idraulico Hydraulic circuit		Portata nominale (fino a) Nominal flow (up to) (l/min - US gpm)	Pressione massima Max. pressure (bar - psi)	
EE	8-10-12	 NA	 NC	40 - 11	210 - 3050	
EA	8	 NA	 NC	1 - 0.3	350 - 5100	
EC..M	8-10-12-16	 NA	 NC	150 - 40	380 - 5500	
EF..M	8-10-12-16	 NA	 NC	150 - 40	380 - 5500	
EH..M	8-10-12-16	 NA	 NC	150 - 40	380 - 5500	
EW	8-10-12	 NA	 NC	150 - 40	210 - 3050	
EW..M	8-10	 NA	 NC	40 - 11	350 - 5100	
EJ08F	8			12 - 3	50 - 700	
EJ08G	8			3 - 0.9	350 - 5100	
EJ../M	8-10	SPOOL 1	SPOOL 2	SPOOL 3	40 - 11	210 - 3050
						
		SPOOL 4	SPOOL 5	SPOOL 6		
						
EJ12A	12	SPOOL 1	SPOOL 2	SPOOL 4	40 - 11	210 - 3050
						
EL	8-10			20 - 5.3	210 - 3050	

Bobine - note generali: sono disponibili bobine con differenti tipologie di connettori elettrici. Contattare il Servizio Commerciale o vedere il catalogo di riferimento: D1WWEI01I

Coils - general notes: coils are available with different types of solenoids. Please, contact our Sales Department or consult the reference catalogue: D1WWEI01E

Cartucce cavità SAE - SAE cartridge valves

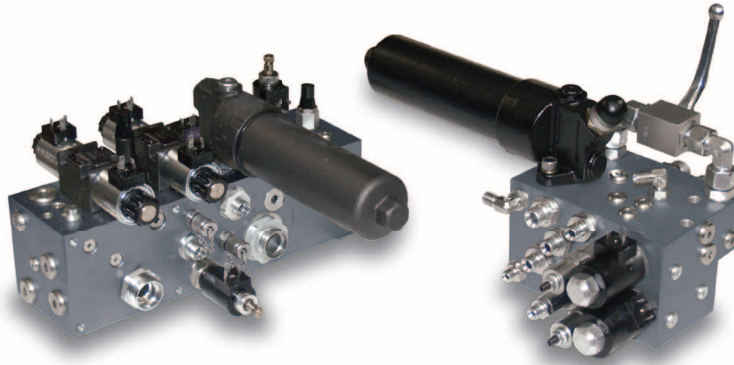
Valvole direzionali a solenoide - Directional solenoid valves

Tipo Type	Cavità SAE SAE cavity	Schema idraulico Hydraulic circuit	Portata nominale (fino a) Nominal flow (up to) (l/min - US gpm)	Pressione massima Max. pressure (bar - psi)
ER../M	8-10		40 - 11	210 - 3050
ER12A	12		40 - 11	210 - 3050
ET../M	8-10		40 - 11	210 - 3050
ET12A	12		40 - 11	210 - 3050

Bobine - note generali: sono disponibili bobine con differenti tipologie di connettori elettrici. Contattare il Servizio Commerciale o vedere il catalogo di riferimento: D1WWEI01I

Coils - general notes: coils are available with different types of solenoids. Please, contact our Sales Department or consult the reference catalogue: D1WWEI01E

Blocchi integrati (HICs) - Hydraulic integrated circuits



L'utilizzo dei circuiti idraulici integrati chiamati HICs (hydraulic integrated circuits) offre sostanziali vantaggi sia nel settore mobile che industriale.

Per questo Walvoil studia e realizza blocchi/manifold speciali per le diverse applicazioni e in base alle necessità del cliente. In particolare questi manifold speciali possono richiedere flangiature di valvole direzionali e filtri oltre che essere loro stessi flangiabili a pompe, motori e trasmissioni.

The usage of integrated hydraulic circuits HIC (hydraulic integrated circuits) offers important advantages both in the mobile and in the industrial sector.

Walvoil therefore studies and realizes special manifolds for the different applications and as per the customer needs.

These customized manifolds can need flanges of directional valves and filters, besides being face mounting to pumps, motors and transmissions.



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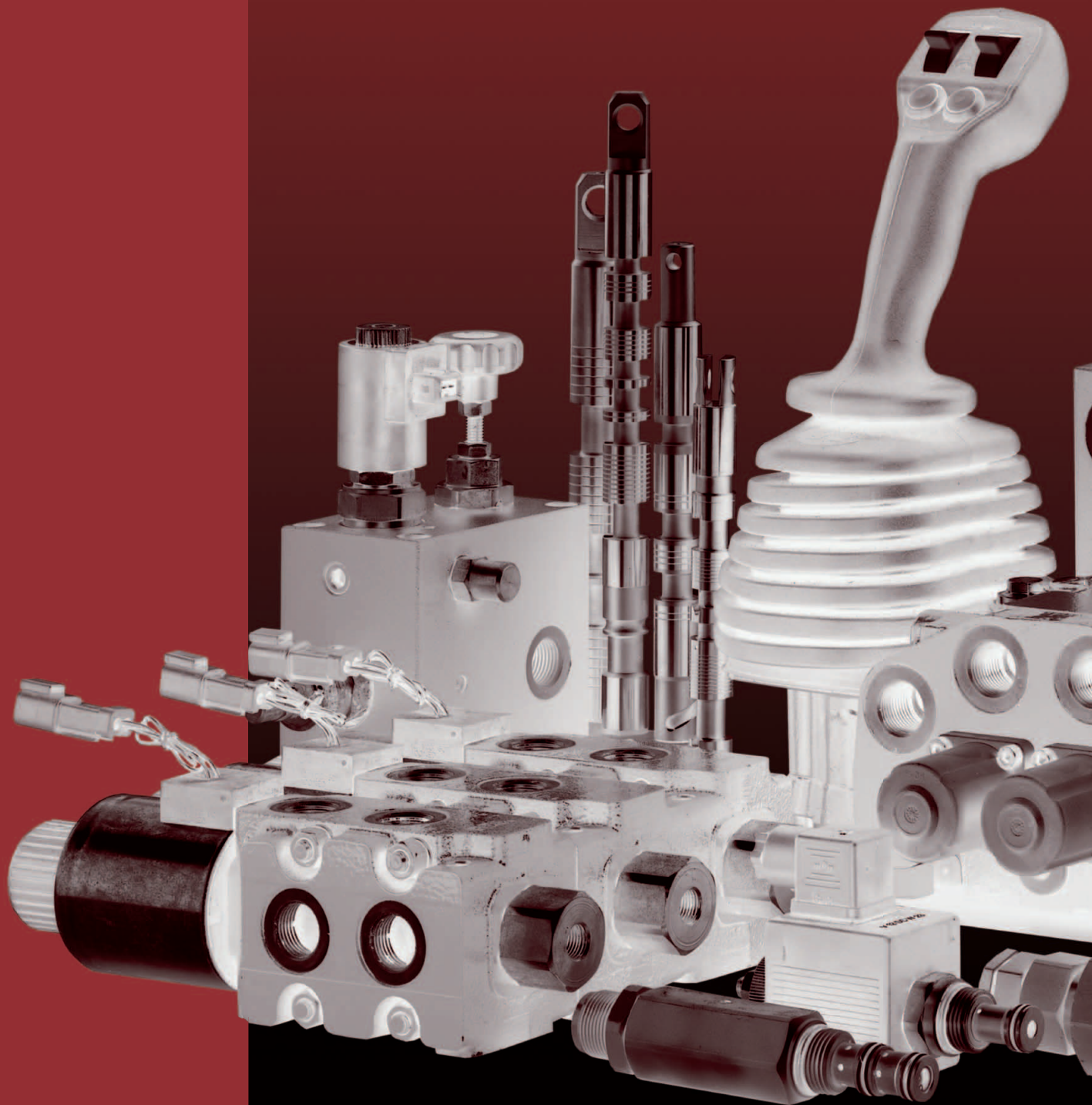
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