



POS's hydraulic speed regulator, is an oil system with closed circuit which has to be connected to a pneumatic cylinder in order to obtain an adjustable slowing down of the stroke.
Several versions are available: regulation in push, in traction and double regulation.
It is available with a SKIP valve, a STOP valve, or both.

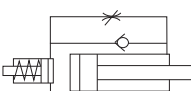
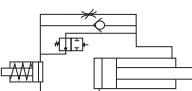
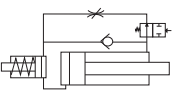
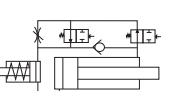
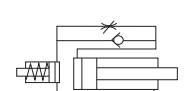
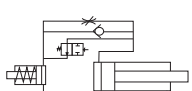
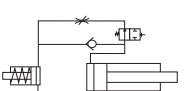
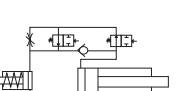
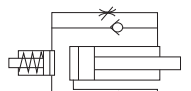
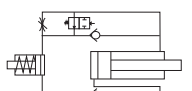
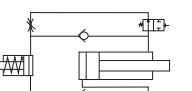
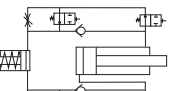
**Hydraulický regulátor rychlosti POS je olejový systém s uzavřeným okruhem, který musí být připojen k pneumatickému válci, aby bylo dosaženo nastavitelného zpomalení zdvihu.
K dispozici je několik verzí: regulace v tlaku, v tahu a dvojitá regulace.
Je k dispozici s ventilem SKIP, ventilem STOP nebo s oběma.**

*Il regolatore idraulico di velocità di POS è un sistema ad olio a circuito chiuso, da abbinare normalmente ad un cilindro pneumatico per ottenere un rallentamento regolabile della corsa.
Sono disponibili diverse versioni: regolazione in spinta, in trazione e doppia regolazione.
È prestronbta una valvola di SKIP, STOP o entrambe.*

ORDERING CODE / OBJEDNÁVKOVÝ KÓD / CHIAVE DI CODIFICA

R 1 3 0 0 1 1 1 0 0 0

- Stroke / Zdvih / Corsa
- 1= In line oil tank / V olejové nádrži / serbatoio in linea
2= Only regulator / Pouze regulátor / solo regolatore
4= SKIP valve / Ventil SKIP / valvola SKIP
5= STOP valve / Ventil STOP / valvola STOP
6= SKIP+STOP
- 1= Outlet regulation / Regulace výstupu / Regolatore in uscita
2= Inlet regulation / Regulace vstupu / Regolatore in rientro
3= Double acting regulation / Dvojitá regulace / Regolatore doppio effetto

	Only regulator Pouze regulátor Solo regolazione	With SKIP Ventil SKIP Con SKIP	With STOP Ventil STOP Con STOP	With SKIP and STOP Ventil SKIP e STOP Con SKIP e STOP
Outlet regulation Regulace výstupu Regolatore in uscita				
Inlet regulation Regulace vstupu Regolatore in rientro				
Double acting regulation Dvojitá regulace Regolatore doppio effetto				

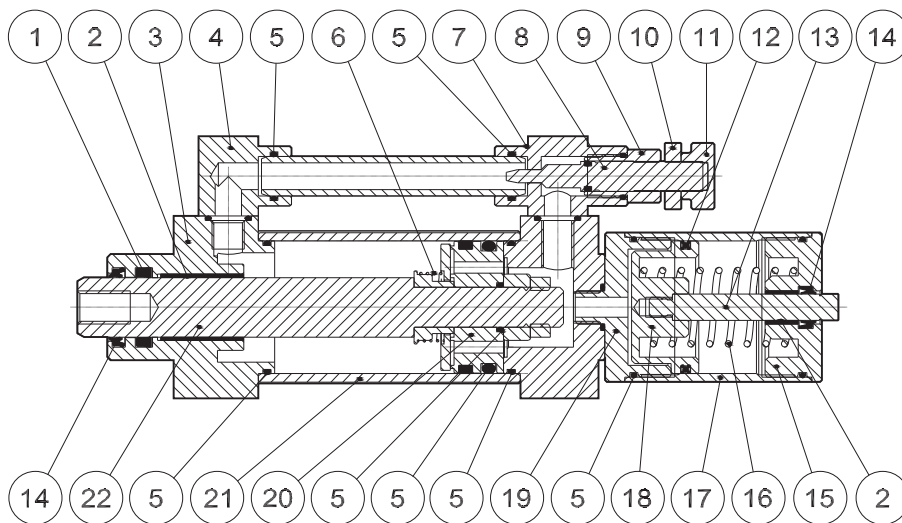
STANDARD STROKES / STANDARDNÍ ZDVIHY / CORSE STANDARD

Ø40 mm 50-100-150-200-250-300-350-400-450-500

TECHNICAL DATA / TECHNICKÁ DATA / DATI TECNICI

Max load / Maximální zatížení / Carico massimo	600 Kg
Minimum / Max speed / Minimální / maximální rychlost / Velocità min./max	60 - 10.000 mm/min
Temperature range / Rozsah provozních teplot / Temperatura di esercizio	-10°C / +70°C
Hydraulic oil Viscosity / Hydraulický olej Viskozita / Viscosità olio	2,9E 50°C
Minimum pressure start valve skip and stop Přeskočit a zastavit ventil minimálního tlaku Pressione min. per l'azionamento delle valvole di skip e stop	4 bar

COMPONENTS / KOMPONENTY / COMPONENTI



	DESCRIPTION / DESCRIPTION / DESCRIZIONE	MATERIAL / MATERIÁL / MATERIALE
1	Seals / těsnění / Guarnizioni	Polyurethane / PU / Poliuretano
2	Slide bearing / Kluzná ložiska / Bussola guida	Steel+PTFE / Ocel+PTFE / Acciaio+PTFE
3	Front cap / Přední víčko / Testata anteriore	Aluminium / hliník / Alluminio
4	Collector / Kolektor / Collettore	Aluminium / hliník / Alluminio
5	O-Ring / O-kroužek	NBR
6	Spring / Jaro / Molla	Steel / Ocel / Acciaio
7	Manifold / Rozdělovač / Basetta	Aluminium / hliník / Alluminio
9	Body / Tělo / Corpo	Steel / Ocel / Acciaio
10	Stop metal ring / Zastavte kovový prsten / Ghiera di arresto	Steel / Ocel / Acciaio
11	Metal ring for regulation / Kovový kroužek pro regulaci / Ghiera di reg.	Steel / Ocel / Acciaio
12	O-Ring / O-kroužek	NBR
13	Rod / Pistní tyč / Stelo	Steel / Ocel / Acciaio
14	Seal / těsnění / Guarnizione	Polyurethane / PU / Poliuretano
15	Plug / Zástrčka / Tappo	Aluminium / hliník / Alluminio
16	Spring / Jaro / Molla	Steel / Ocel / Acciaio
17	Tube / Trubka / Tubo	Steel / Ocel / Acciaio
18	Piston / Pist / Pistone	Aluminium / hliník / Alluminio
19	Base / Základna / Base	Aluminium / hliník / Alluminio
20	Piston / Pist / Pistone	Aluminium / hliník / Alluminio
21	Tube / Trubka / Tubo	Steel / Ocel / Acciaio
22	Rod / Pistní tyč / Stelo	Steel / Ocel / Acciaio

WORKING PRINCIPLE / PRINCIP PRÁCE / PRINCIPIO DI FUNZIONAMENTO

The operating principle of hydraulic speed regulators is based on oil incompressibility: flowing from the frontal to the rear chamber (or vice-versa), through a flow regulator, it absorbs and neutralizes any speed variation in the linear actuator connected to it.

Hydraulic speed regulators can split, with appropriate precautions, the different processing stages, and make it possible to approach the pieces more quickly, to speed-up or slow-down the processing steps, to accelerate, for example, the approach to the next piece (using by-pass valves known as SKIP valves): furthermore, they can be equipped with STOP valves to clamp and hold all the moving pieces connected to them. The SKIP and STOP valves are 2-way pneumatic shutter valves. As a rule both of them are open, and therefore pneumatic pressure must be provided in order to shut-off the SKIP valve and turn-on the STOP valve. The SKIP valve is provided with an auxiliary maximum speed regulator. Regulators' stems are provided with a threaded hole (M10x1.5) for clamping, while in order to secure speed regulators to the machine or cylinder, you can use the threaded holes available on front heads (M6), coupled with optional connecting plates. All speed regulators are provided with an auxiliary tank to offset the volume difference between the two chambers (due to the presence of the stem in the front chamber) and to refill the unit after the leaks (even minimum) between the stem and its gasket. A piston inside the tank is pressed by a spring which ensure a slight overpressure within the system. Furthermore, a dip stick protrudes from the tank, to indicate minimum oil level.

Princip činnosti hydraulických regulátorů otáček je založen na nestlačitelnosti oleje: protékající z přední do zadní komory (nebo naopak), prostřednictvím regulátoru průtoku absorbuje a neutralizuje jakoukoli změnu rychlosti lineárního ovladače, který je k němu připojen.

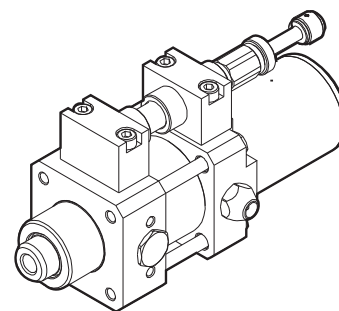
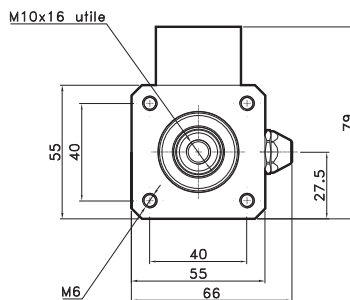
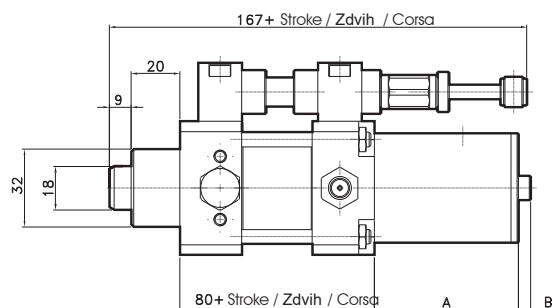
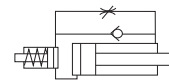
Regulátory hydraulické rychlosti mohou s příslušnými preventivními opatřeními rozdělit různé fáze zpracování a umožnit rychlejší přístup k kusům, urychlit nebo zpomalit kroky zpracování, urychlit například přiblížení k dalšímu kusu (pomocí obtokových ventilů známých jako SKIP ventily): dále mohou být vybaveny STOP ventily pro upnutí a držení všech pohyblivých kusů k nim připojených. Ventily SKIP a STOP jsou obousměrné pneumatické uzavírací ventily. Zpravidla jsou oba otevřené, a proto musí být zajištěn pneumatický tlak, aby se uzavřel ventil SKIP a zapnul se ventil STOP. Ventil SKIP je vybaven pomocným regulátorem maximální rychlosti. Stonky regulátorů jsou opatřeny závitovým otvorem (M10x1,5) pro upnutí, zatímco pro zajištění regulátorů rychlosti ke stroji nebo válci můžete použít závitové otvory dostupné na předních hlavách (M6), spojené s volitelnými spojovacími deskami. Všechny regulátory rychlosti jsou vybaveny pomocnou nádrží, která vyrovnává rozdíl objemu mezi oběma komorami (v důsledku přítomnosti dřívku v přední komoře) a doplňováním jednotky mění netěsnosti (i minimální) mezi dřívkem a jeho těsněním. Pist uvnitř nádrže je tlačěn pružinou, která zajišťuje mírný přetlak v systému. Dále z nádrže vyčnívá měřka, která označuje minimální hladinu oleje.

Il principio di funzionamento dei regolatori idraulici di velocità sfrutta l'incompressibilità dell'olio che, passando dalla camera anteriore a quella posteriore (o viceversa) attraverso un regolatore di flusso assorbe e neutralizza le variazioni di velocità dell'attuatore lineare ad esso collegato.

I regolatori di velocità idraulici sono in grado di scomporre con opportuni accorgimenti le varie fasi di lavorazione, consentendo avvicinamenti rapidi, fasi di lavoro più o meno lente, successive fasi di movimento accelerato per l'avvicinamento ad esempio al pezzo successivo (con valvole di by-pass chiamate SKIP), inoltre si possono anche dotare di valvole di STOP che permettono di bloccare e trattenere nella posizione raggiunta gli elementi in movimento ad essi collegati. Le valvole di SKIP e di STOP sono delle valvole ad attutatore a 2 vie, azionate pneumaticamente, entrambe sono normalmente aperte pertanto è necessario erogare pressione pneumatica affinché la SKIP si escluda e la STOP si inserisca. La valvola di SKIP è dotata di un regolatore supplementare per il controllo della velocità massima. Gli steli dei regolatori presentano un foro filettato M10x1.5 utilizzabile per il fissaggio, mentre per quanto riguarda l'ancoraggio dei regolatori di velocità alla macchina o al cilindro si possono sfruttare i fori filettati presenti sulle testate anteriori M6 abbinati anche alle piastre di collegamento opzionali. Tutti i regolatori di velocità hanno un serbatoio supplementare che serve per compensare la differenza di volume tra le due camere, determinata dalla presenza dello stelo in quella anteriore, e per ripristinare le perdite, seppur minime, che si verificano tra lo stelo e la guarnizione dello stesso. All'interno del serbatoio è presente un pistone mantenuto in pressione da una molla che assicura una leggera sovrappressione al sistema. Inoltre, dal serbatoio fuoriesce un'astina con una tacca che indica il livello minimo dell'olio.

Outlet regulation - In line oil tank
Výstupní regulace - V olejové nádrži
Regolazione in uscita - Serbatoio in linea

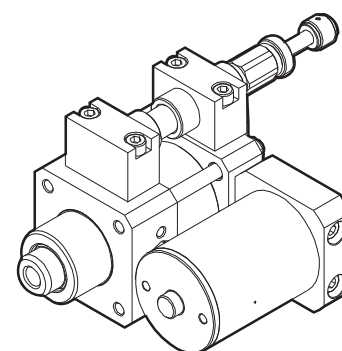
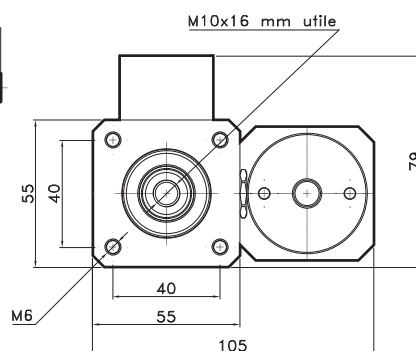
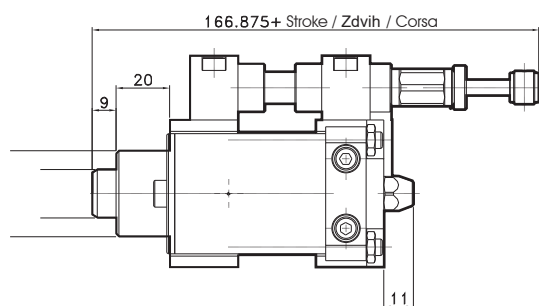
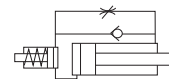
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Strokes / Zdvih / Corse mm	A	B max
<75	75	25
75 - 150	90	39
150 - 250	142	65
250 - 350	171	87
350 - 500	222	125

Outlet regulation
Regulace výstupu
Regolazione in uscita

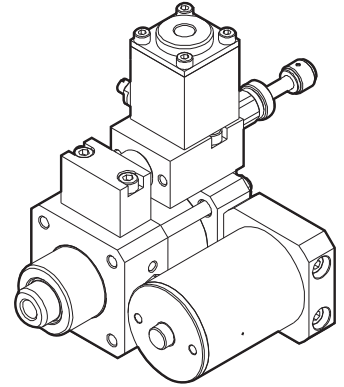
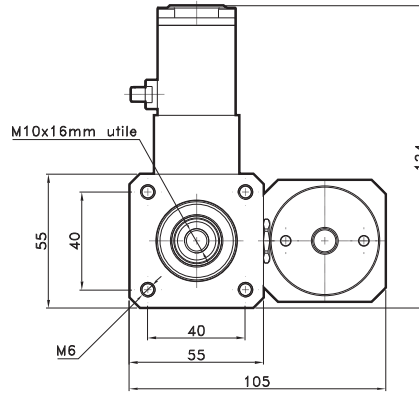
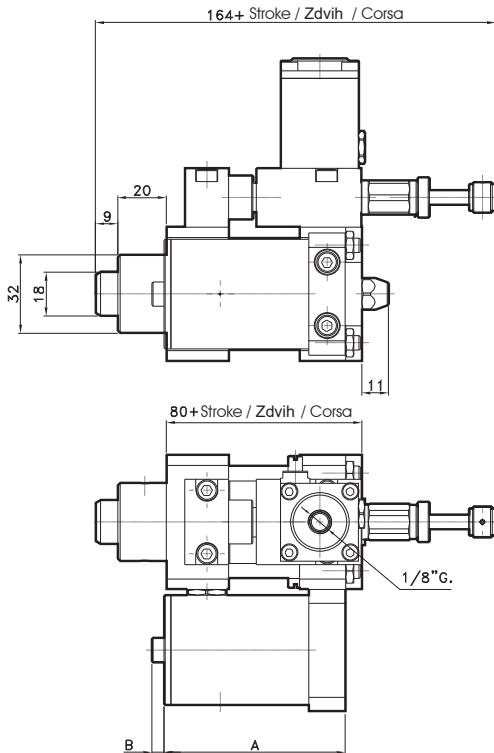
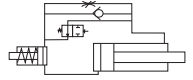
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Strokes / Zdvih / Corse mm	A	B max
<75	75	25
75 - 150	90	39
150 - 250	142	65
250 - 350	171	87
350 - 500	222	125

Outlet regulation + SKIP valve
Výstupní regulace + ventil SKIP
Regolazione in uscita + valvola SKIP

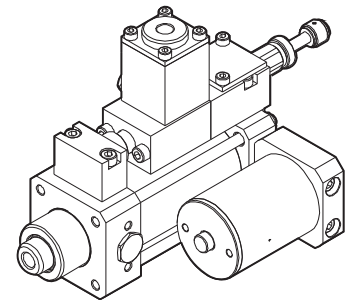
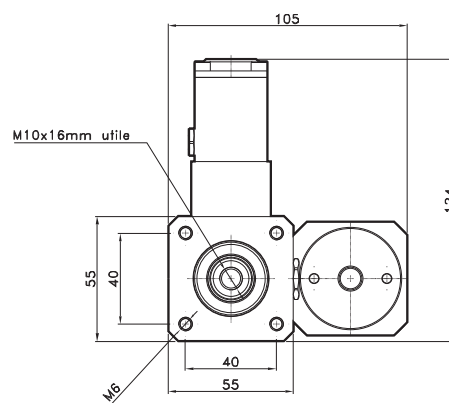
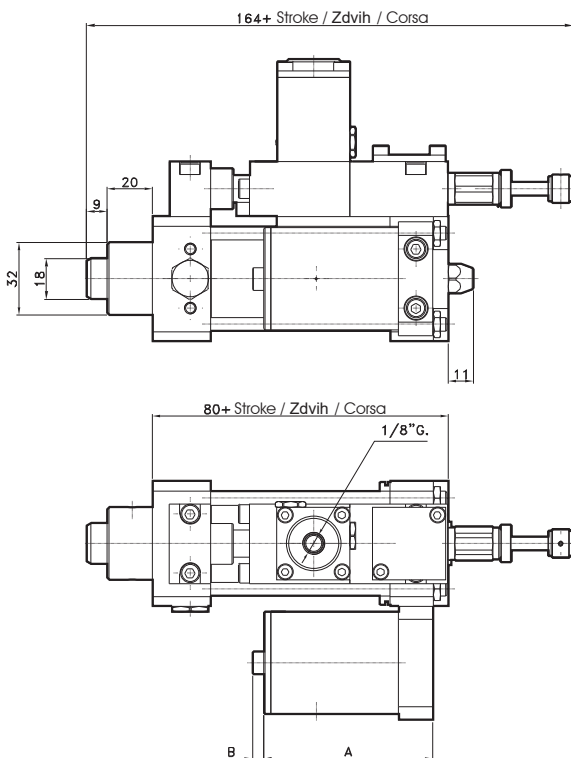
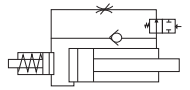
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Strokes / Zdvih / Corse mm	A	B max
<75	75	25
75 - 150	90	39
150 - 250	142	65
250 - 350	171	87
350 - 500	222	125

Outlet regulation + STOP valve
Výstupní regulace + STOP ventil
Regolazione in uscita + valvola STOP

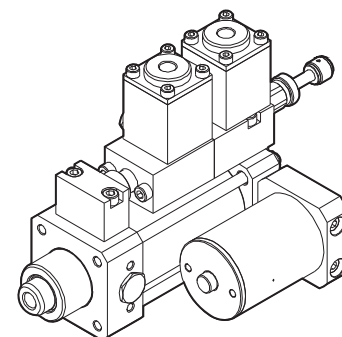
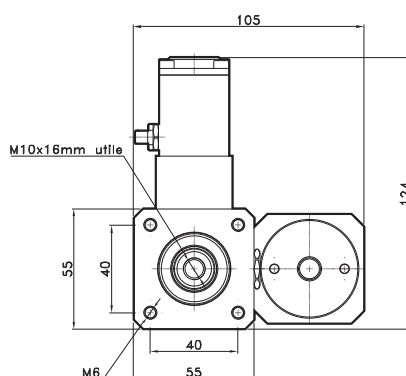
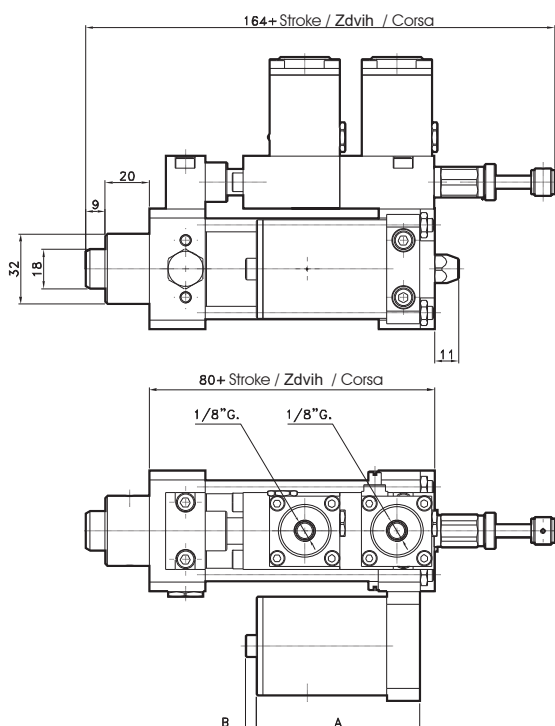
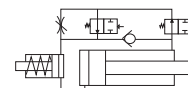
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Strokes / Zdvih / Corse mm	A	B max
<75	75	25
75 - 150	90	39
150 - 250	142	65
250 - 350	171	87
350 - 500	222	125

Outlet regulation + SKIP valve + STOP valve
Výstupní regulace + ventil SKIP + ventil STOP
Regolazione in uscita + valvola SKIP + valvola STOP

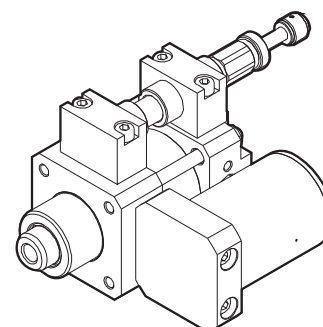
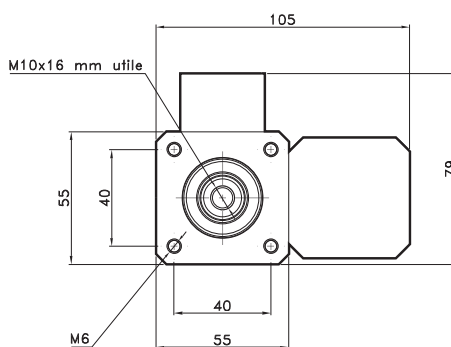
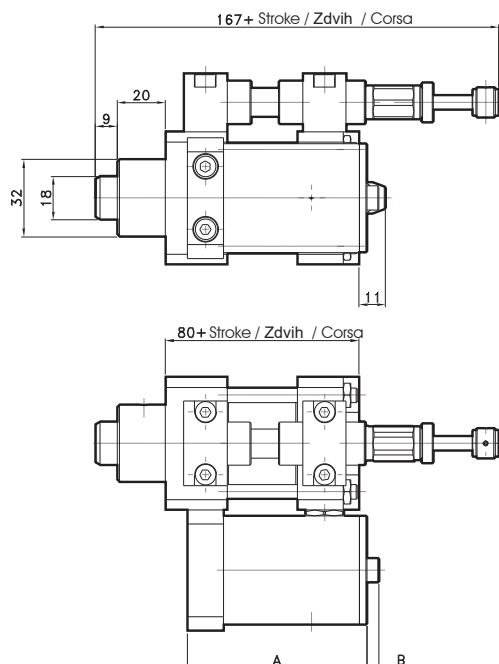
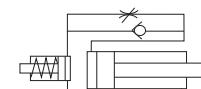
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Strokes / Zdvih / Corsa mm	A	B max
<75	75	25
75 - 150	90	39
150 - 250	142	65
250 - 350	171	87
350 - 500	222	125

Inlet regulation
regulace vstupu
Regolazione in rientro

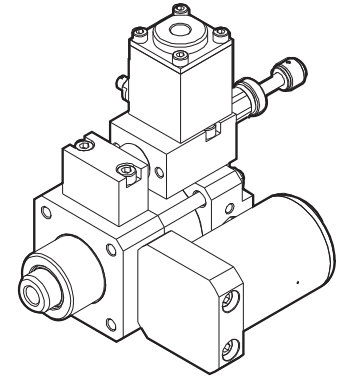
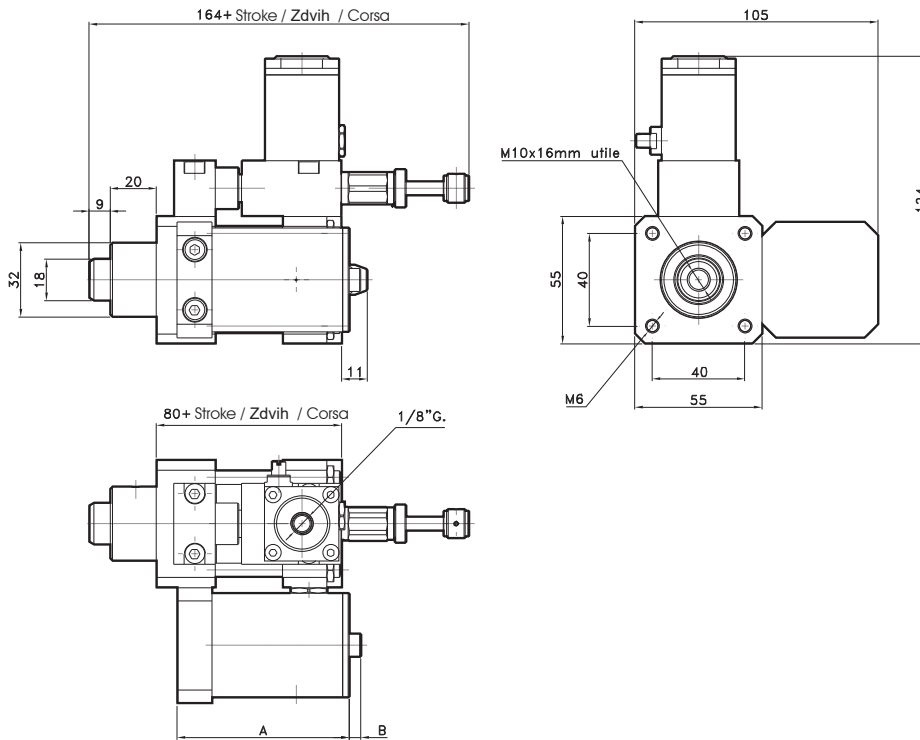
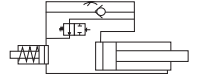
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Strokes / Zdvih / Corsa mm	A	B max
<75	75	25
75 - 150	90	39
150 - 250	142	65
250 - 350	171	87
350 - 500	222	125

Inlet regulation + SKIP valve
regulace vstupu + ventil SKIP
 Regolazione in rientro + valvola SKIP

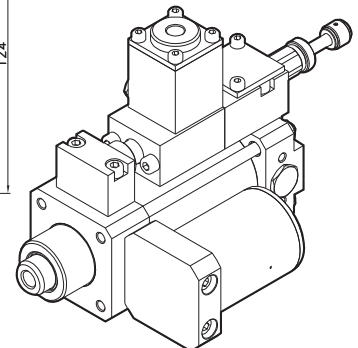
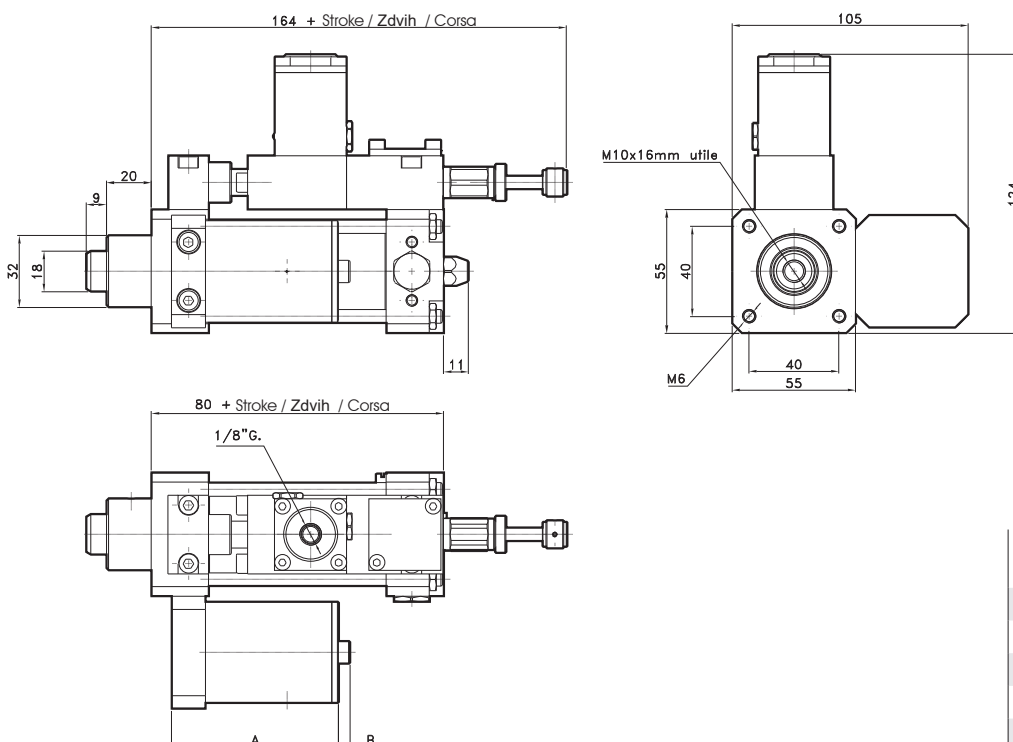
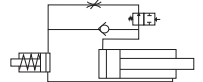
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Strokes / Zdvih / Corse mm	A	B max
<75	75	25
75 - 150	90	39
150 - 250	142	65
250 - 350	171	87
350 - 500	222	125

Inlet regulation + STOP valve
Regulace vstupu + STOP ventil
 Regolazione in rientro + valvola STOP

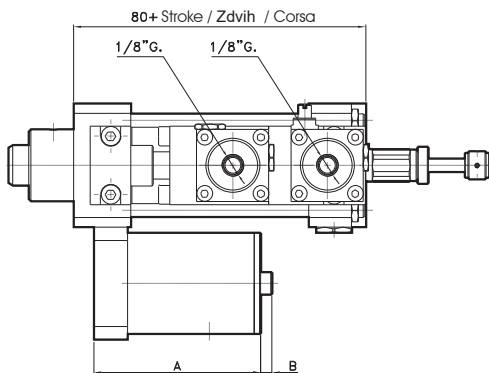
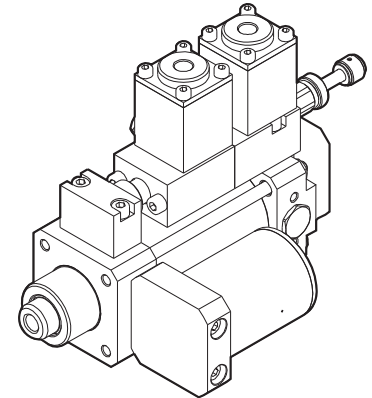
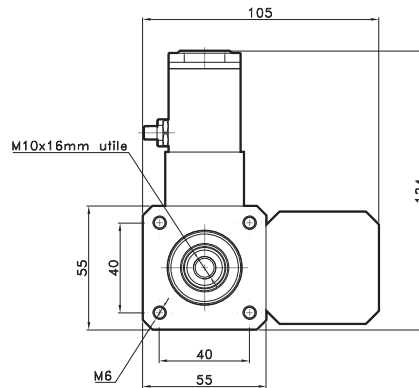
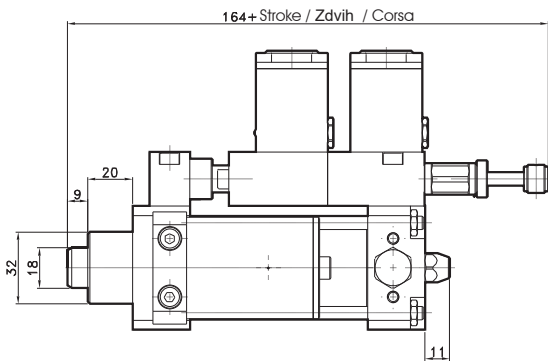
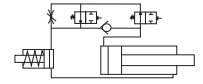
CODE: RI300125.mm



Strokes / Zdvih / Corse mm	A	B max
<75	75	25
75 - 150	90	39
150 - 250	142	65
250 - 350	171	87
350 - 500	222	125

Inlet regulation + SKIP valve + STOP valve
Regulace vstupu + ventil SKIP + ventil STOP
 Regolazione in rientro + valvola SKIP + valvola STOP

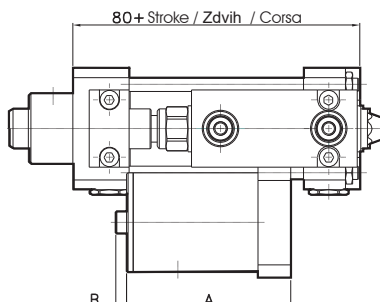
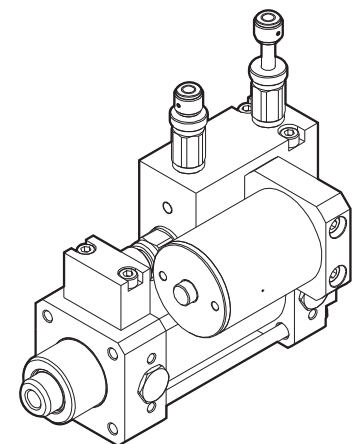
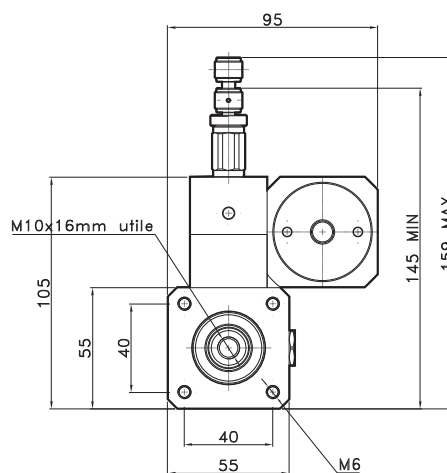
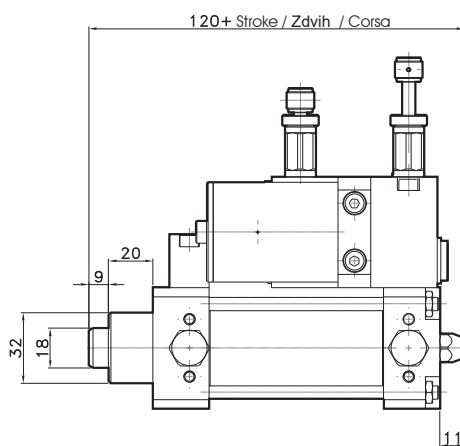
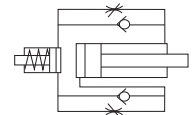
CODE: RI300126.mm



Strokes / Zdvih / Corse mm	A	B max
<75	75	25
75 - 150	90	39
150 - 250	142	65
250 - 350	171	87
350 - 500	222	125

Double acting regulation
Dvojčinná regulace
 Regolazione doppio effetto

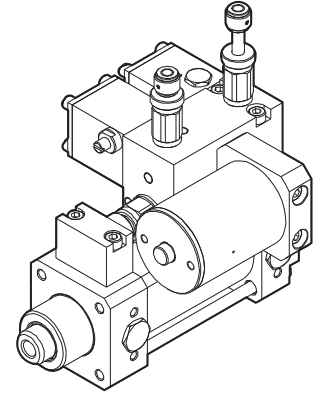
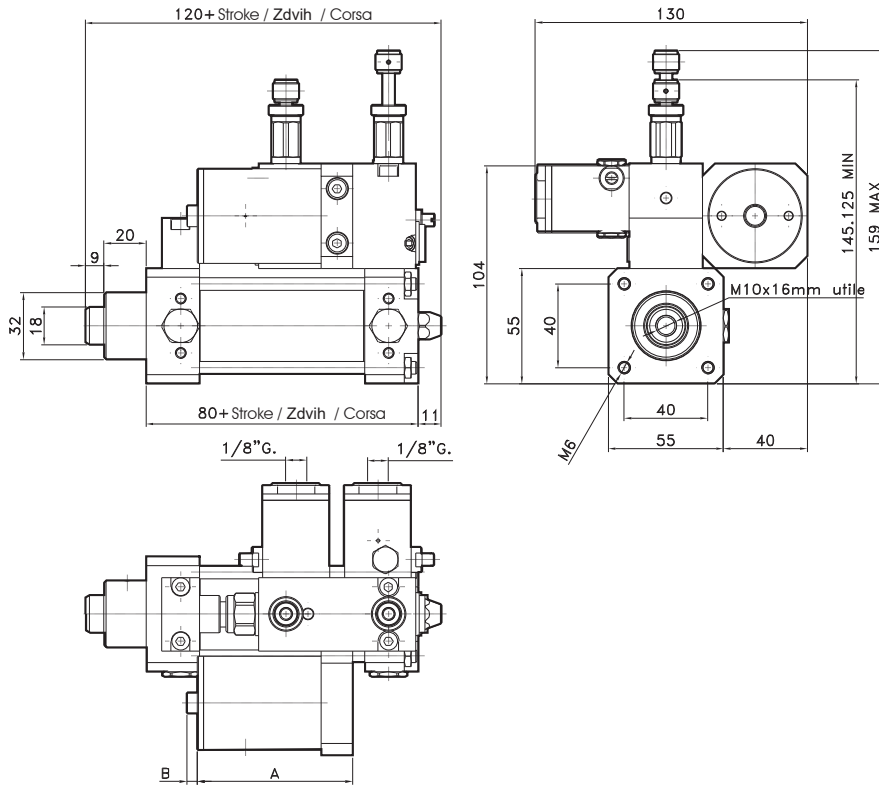
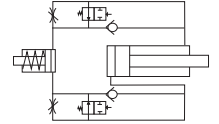
CODE: RI300132.mm



Strokes / Zdvih / Corse mm	A	B max
<75	75	25
75 - 150	90	39
150 - 250	142	65
250 - 350	171	87
350 - 500	222	125

Double acting regulation + SKIP valve
Dvojčinná regulace + ventil SKIP
 Regolazione doppio effetto + valvola SKIP

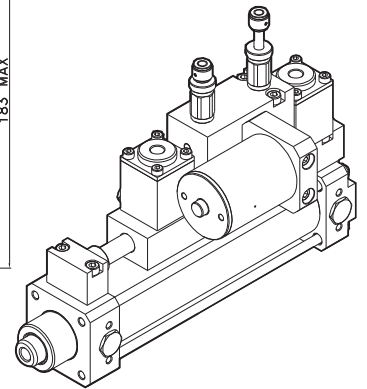
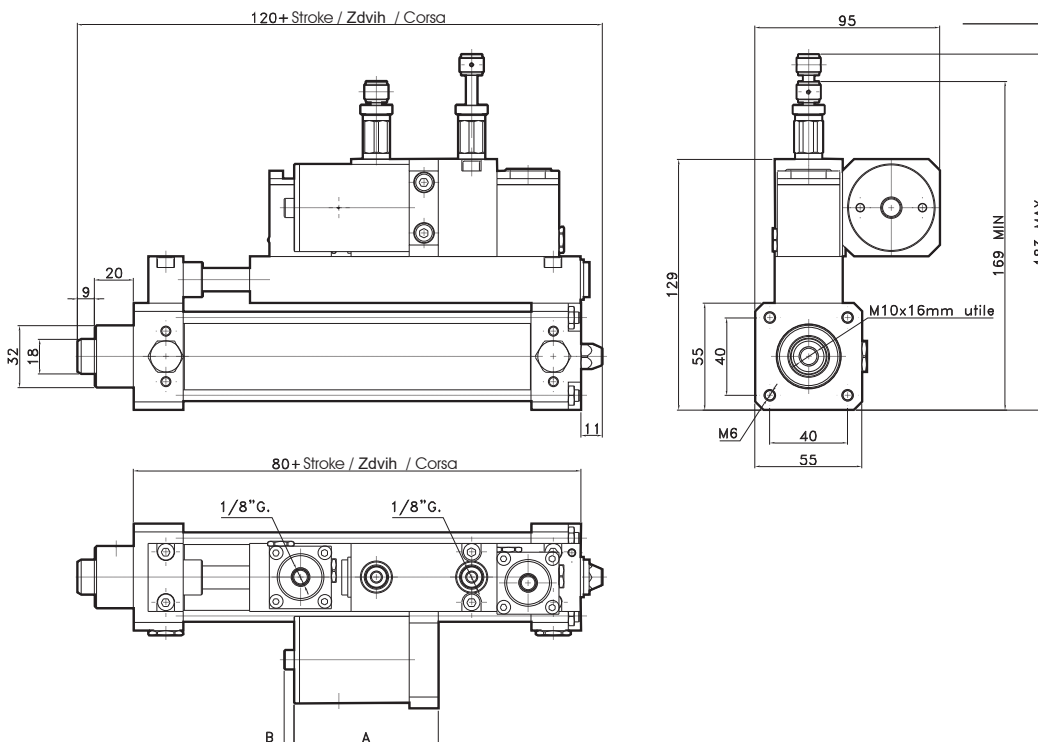
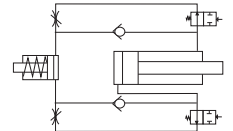
CODE: RI300134.mm



Strokes / Zdvih / Corse mm	A	B max
<75	75	25
75 - 150	90	39
150 - 250	142	65
250 - 350	171	87
350 - 500	222	125

Double acting regulation + STOP valve
Dvojčinná regulace + STOP ventil
 Regolazione doppio effetto + valvola STOP

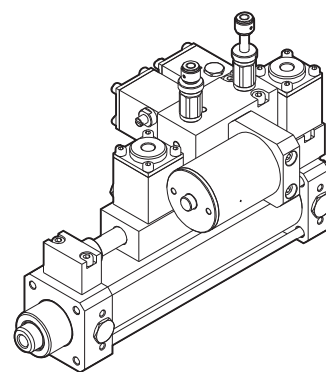
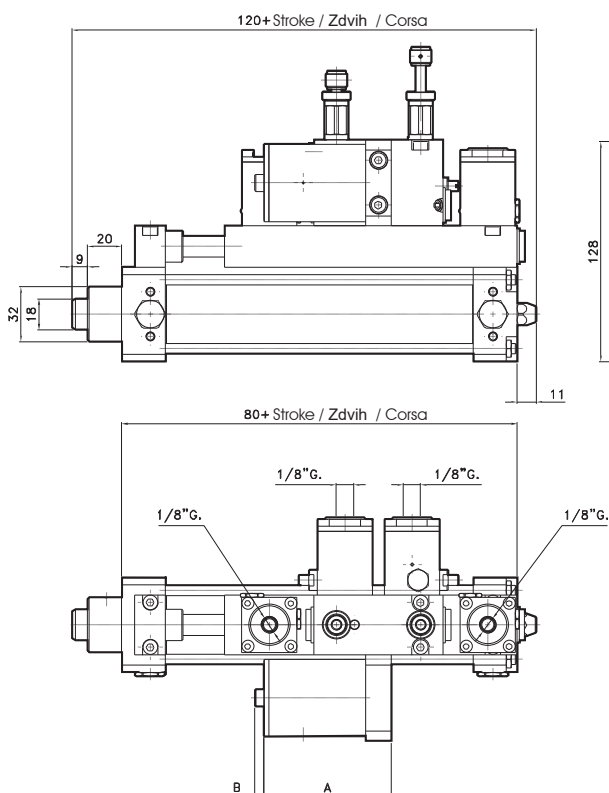
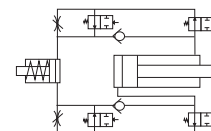
CODE: RI300135.mm



Strokes / Zdvih / Corse mm	A	B max
<75	75	25
75 - 150	90	39
150 - 250	142	65
250 - 350	171	87
350 - 500	222	125

Double acting regulation + SKIP valve + STOP valve
Dvojčinná regulace + ventil SKIP + ventil STOP
Regolazione doppio effetto + valvola SKIP + valvola STOP

CODE: RI300136.mm



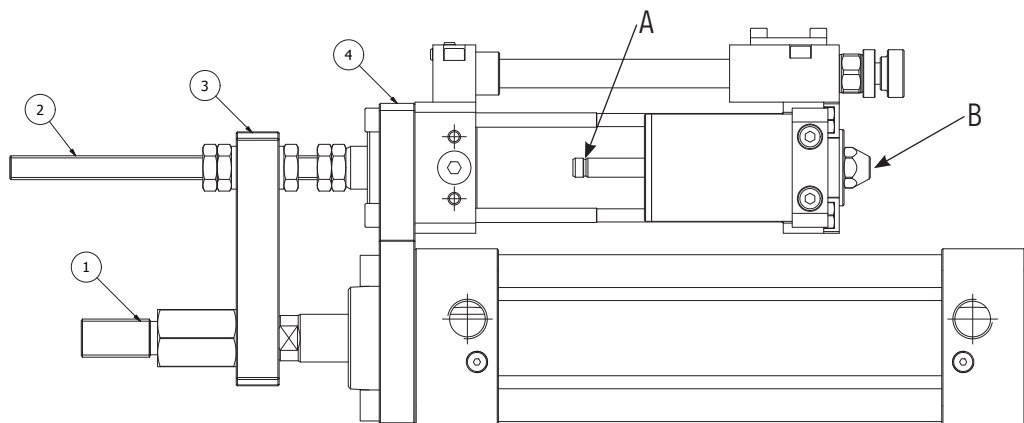
Strokes / Zdvih / Corse mm	A	B max
150 - 250	142	65
250 - 350	171	87
350 - 500	222	125

ASSEMBLY AND MAINTENANCE / MONTÁŽ A ÚDRŽBA / MONTAGGIO E MANUTENZIONE

The hydraulic speed regulator is a closed circuit system, and therefore no factors can negatively affect its operation. Be careful with the hydraulic oil level, it must never drop below the minimum level indicated by the drip stick of the auxiliary tank (A). Otherwise, cavitation or air bubbles inside the circuit would hinder system regulation. Top-up the oil, if necessary, only through the dedicated unidirectional valve mounted on the rear head (B), through the usage of an oil syringe. Excess oil will be ejected through a small drain hole on the tank.

Hydraulický regulátor otáček je systém s uzavřeným okruhem, a proto jeho fungování nemohou negativně ovlivnit žádné faktory. Při hladině hydraulického oleje buďte opatrní, nikdy nesmí klesnout pod minimální hladinu označenou odtokovou tyčí pomocné nádrže (A). Jinak by kavitace nebo vzduchové bubliny uvnitř okruhu bránily regulaci systému. Doplňte olej, je-li to nutné, pouze pomocí vyhrazeného jednosměrného ventilu namontovaného na zadní hlavě (B) pomocí olejové stříkačky. Přebytečný olej bude vypuštěn malým vypouštěcím otvorem v nádrži.

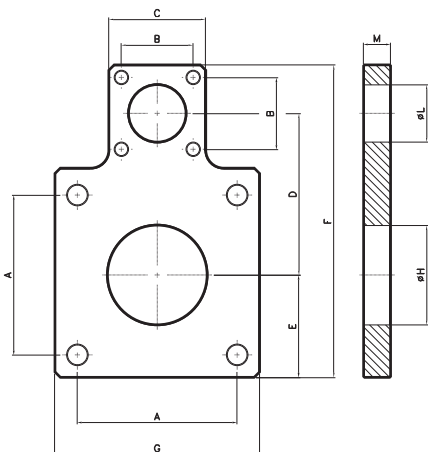
Il regolatore idraulico di velocità è un sistema a circuito chiuso, pertanto non vi sono fattori che possono influire negativamente sul funzionamento. È necessario invece prestare attenzione al livello dell'olio idraulico che non deve mai scendere sotto il livello minimo evidenziato dalla tacca sull'astina del serbatoio supplementare (A). Se questo avvenisse si creerebbero nel circuito dei fenomeni di cavitazione o peggio delle bolle d'aria che comprometterebbero la capacità di regolazione del sistema. Gli eventuali rabbocchi devono essere effettuati esclusivamente attraverso l'apposita valvola unidirezionale montata sulla testata posteriore (B) tramite una siringa per rabbocco olio.



POS.	CODE
1	AR4197.Ø
2	AR41981000
3	AR4196.Ø
4	AR4179.Ø

CONNECTION PLATE
PŘEDNÍ DESKA
 PIASTRA DI COLLEGAMENTO

Material: Steel
Materiál: Ocel
 Materiale: Acciaio



CODE	Ø
AR4179040	40
AR4179050	50
AR4179063	63
AR4179080	80
AR4179100	100

Ø	A	B	C	D	F	G	H	L	M
40	38	40	54	60	114	54	35.5	32	10
50	46.5	40	54	65	124	64	40.5	32	10
63	56.5	40	54	71.5	137	77	45.5	32	10
80	72	40	54	80	154	94	45.5	32	10
100	89	40	54	90	174	114	55.5	32	15

RODS CONNECTOR
SPOJKA
 STAFFA DI COLLEGAMENTO STELI

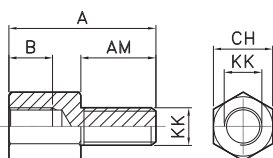
Material: Steel
Materiál: Ocel
 Materiale: Acciaio



CODE	Ø
AR4196040	40
AR4196050	50
AR4196063	63
AR4196080	80
AR4196100	100

NIPPLE
REDUKCE
 NIPPLO

Material: Steel
Materiál: Ocel
 Materiale: Acciaio



CODE	Ø
AR4197040	40
AR4197050	50-63
AR4197080	80-100

Ø	A	AM	B	CH	KK	Peso (g)
40	47	24	14	19	M12x1.25	60
50-63	65	32	19	24	M16x1.5	130
80-100	78	40	24	30	M20x1.5	250

THREADED ROD
ZÁVITOVÁ TYČ
 BARRA FILETTATA

Material: Steel
Materiál: Ocel
 Materiale: Acciaio



CODE
AR41981000