



# COMPONENT CATALOG VALVES







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# **HT-VALVES INTRODUCTION**

# Hyva tipping valves

The tipping valve is the most critical component of the hydraulic tipping system as it directly influences the safety, performance and efficiency of the tipper. With this in mind, Hyva has always paid a lot of attention to these components to deliver to the market the safest and the most efficient solution – currently represented by the HT range of tipping valves.

The Hyva HT valve series is a complete range of tipping valves to be used for different cylinder types and other applications driven by hydraulic systems. The HT 1220 is a single pressure series and the HT 2220 is a double pressure type. Both types can be used for oil flow up to 220 litres per minute and the pressure settings are from 110 to 350 bar.

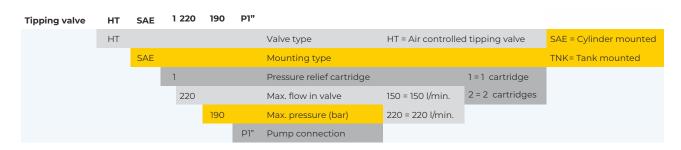
Dual pressure valves (HT 2220) are used for applications where two working pressures are required, the pressure selection can be manual or pneumatic in the AS version.

For smaller flows, Hyva offers the HT 1150 valve series. This valve is suitable for oil flow of 150 litres per minute and the working pressure settings available are from 135 to 250bar.

The complete range of Hyva HT tipping valves is based on the pilot operated pressure relief valve design with fixed pressure setting (by means of fixed value cartridges), which protects both the cylinder and the pump from overpressure. These pressure cartridges are fully interchangeable, so the pressure can be adjusted by its replacement in an easy and safe manner. The HT series is also designed to allow proportional lowering which is of great importance when lowering (half) loaded tipper bodies.

Hyva HT tipping valves (TNK version) can be mounted on the oil tank which reduces the number of hoses and fittings and consequently the possibility of leakages. The other version (SAE version) can be mounted directly on the cylinder inlet port, in which case the valve also acts as a safety device in the event of a pressure feeding hose burst. The hose burst valve prevents the tipper body from falling in an uncontrolled way. Hyva HT valves are pneumatically operated with air controls optimised to ensure safe and precise operation of the system during its overall long lifetime.

#### **Code system for HT valves**





# **HT-1150 VALVES INTRODUCTION**

# Hyva HT-1150 tipping valves

This series of valves is designed to be used with oil flows up to 150 litres per minute. The valves are the optimal choice for systems working with smaller tipping cylinders or with applications where high flow/speed is not the key requirement. The unique design of the housing means that the valve can be mounted either on the tank or directly on the cylinder. The mounting kits for both mounting options are included and delivered with the valve.

The working pressure range is from 135 to 250 bar and the maximum working pressure is set by Hyva's well-known concept of the 'fixed value cartridge'. The pressure cartridges used in these valves are fully interchangeable with other HT series valves.

The hydraulic connections are standard G  $\frac{3}{4}$ , but for heavier working conditions the G  $\frac{1}{7}$  connection for the pump port is available. The valve is also equipped with a G  $\frac{1}{4}$ " connection port for a pressure sensor and the pneumatic control port is suitable to connect with 6mm pneumatic hoses.

The valve spool design ensures precise operation - the lowering operation is proportional and the lowering speed can be adjusted.



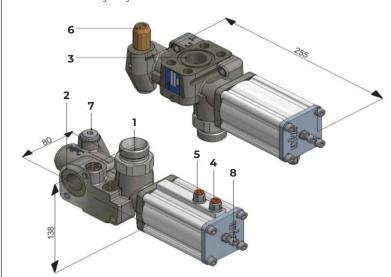
# **HT-1150 VALVES**

# **HT-1150-TNK / SAE**

Part no.	Description	Flow	Weight		Hydraulic o	Max. Pressure		
	(L/min.)		(kg)	Р	Т	С	МРС	(bar)
14767213	TIP VALVE HT-TNK/SAE-1150-135-P3/4"	150	3.7	G <sup>3</sup> /4"	G <sup>3</sup> / <sub>4</sub> "	G¾"-SAE	G1/4"	135
14767215	TIP VALVE HT-TNK/SAE-1150-150-P3/4"	150	3.7	G3/4"	G <sup>3</sup> / <sub>4</sub> "	G¾"-SAE	G1/4"	150
14767217	TIP VALVE HT-TNK/SAE-1150-170-P3/4"	150	3.7	G3/4"	G <sup>3</sup> / <sub>4</sub> "	G¾"-SAE	G1/4"	170
14767219	TIP VALVE HT-TNK/SAE-1150-190-P3/4"	150	3.7	G3/4"	G <sup>3</sup> / <sub>4</sub> "	G¾"-SAE	G1/4"	190
14767222	TIP VALVE HT-TNK/SAE-1150-220-P3/4"	150	3.7	G3/4"	G <sup>3</sup> / <sub>4</sub> "	G¾"-SAE	G1/4"	220
14767225	TIP VALVE HT-TNK/SAE-1150-250-P3/4"	150	3.7	G <sup>3</sup> /4"	G <sup>3</sup> / <sub>4</sub> "	G¾"-SAE	G1/4"	250
14767263	TIP VALVE HT-TNK/SAE-1150-135-P1"	150	3.7	G1"	G <sup>3</sup> / <sub>4</sub> "	G¾"-SAE	G1/4"	135
14767265	TIP VALVE HT-TNK/SAE-1150-150-P1"	150	3.7	G1"	G <sup>3</sup> / <sub>4</sub> "	G¾"-SAE	G1/4"	150
14767267	TIP VALVE HT-TNK/SAE-1150-170-P1"	150	3.7	G1"	G <sup>3</sup> / <sub>4</sub> "	G¾"-SAE	G1/4"	170
14767269	TIP VALVE HT-TNK/SAE-1150-190-P1"	150	3.7	G1"	G <sup>3</sup> / <sub>4</sub> "	G¾"-SAE	G1/4"	190
14767272	TIP VALVE HT-TNK/SAE-1150-220-P1"	150	3.7	G1"	G <sup>3</sup> / <sub>4</sub> "	G¾"-SAE	G1/4"	220
14767275	TIP VALVE HT-TNK/SAE-1150-250-P1"	150	3.7	G1"	G <sup>3</sup> / <sub>4</sub> "	G³¼"-SAE	G1/4"	250

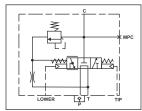


- TNK: Hyva tank mounting plateSAE: SAE inlet of Hyva cylinder



- 1 P Pump connection
- 2 T Tank connection
- 3 C Cylinder connection SAE
- Pneumatic connection (Tip) 6 mm 4
- Pneumatic connection (Lower) 6 mm
- Pressure relief cartridge 6
- 7 MPC Measure Pressure Cylinder (Pressure gauge point)
- Adjustment screw (int.hex. 5) 8
  - (To adjust the lowering speed)

#### HYDRAULIC SYMBOL



#### SAFETY:

HT valve fitted on cylinder (SAE) port provides hose burst safety function







# **SPARE PARTS FOR HT-1150 VALVES**

# MOUNTING KITS

Mounting kits	Kit number
Cylinder (SAE)*	14735162
Tank (TNK)*	14735168
** included with val	ve





# **SEAL KITS AND AIR ASSEMBLY PARTS**

Part no.	Description	Qty.
14844010	SEAL KIT PT/JT/HT VALVE	1
14810517	AIR COUPLING 1/8" - 6MM - 00	2







# HT-1220 TIPPING VALVES INTRODUCTION

#### Hyva HT-1220-SAE tipping valves.

This series of valves, which is designed to be used with oil flows up to 220 litres per minute, is the optimal choice for systems working with bigger tipping cylinders or with heavy duty applications where high flow/speed is one of the key requirements. The SAE version is designed to be mounted on the Hyva cylinder directly, using the mounting kit supplied with the valve. This solution provides easy mounting, precise operation of the tipping cylinder and, as an additional safety feature, the HT 1220 SAE acts also as a hose burst valve in the event of failure of the pressure feeding hose. Hyva ALPHA cylinders are compatible with this SAE type connection.

The working pressure range is from 135 to 250 bar, with the maximum working pressure set by Hyva's fixed value cartridge. The pressure cartridges used in this valve are fully interchangeable with other HT series valves. The hydraulic connections are G 1" to enhance high oil flow capability. The valve is also equipped with a G  $\frac{1}{4}$ " connection port for a pressure sensor and the pneumatic control port will connect with 6mm pneumatic hoses.

The valve spool design ensures precise operation – the lowering operation is proportional and the lowering speed can be adjusted.

# Hyva HT-1220-TNK tipping valves.

This series of valves, which is designed to be used with oil flows up to 220 litres per minute, is the optimal choice for systems working with bigger tipping cylinders or with heavy duty applications where high flow/speed is one of the key requirements. The TNK version can be mounted on the oil tank, using the mounting kit supplied with the valve, and is most popular for semitrailer-tractor tippers, but also in many other applications where the valve is not mounted on the cylinder. Hyva oil tanks are compatible with this type of connection.

The working pressure range is from 110 to 350 bar, with the maximum working pressure set by Hyva's fixed value cartridge. The pressure cartridges used in this valve are fully interchangeable with other HT series valves. The hydraulic connections are G 1" to enhance high oil flow capability. The valve is also equipped with a G  $\frac{1}{4}$ " connection port for a pressure sensor and the pneumatic control port will connect with 6mm pneumatic hoses.

The valve spool design ensures precise operation – the lowering operation is proportional and the lowering speed can be adjusted.



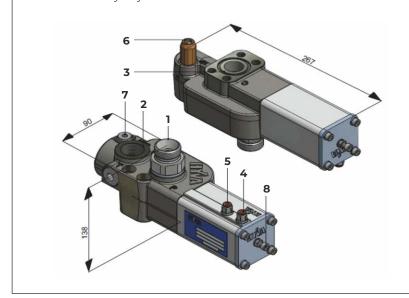
# **HT-1220 VALVES**

# HT-1220-SAE

Part no.	Description	Flow	Weight	1	Hydraulic c	Max. Pressure		
		(L/min.)	(kg)	Р	Т	С	MPC	(bar)
14767453	TIP VALVE HT-SAE-1220-135-P1"	220	5.5	G1"	G1"	SAE	G1/4"	135
14767455	TIP VALVE HT-SAE-1220-150-P1"	220	5.5	G1"	G1"	SAE	G1/4"	150
14767457	TIP VALVE HT-SAE-1220-170-P1"	220	5.5	G1"	G1"	SAE	G1/4"	170
14767459	TIP VALVE HT-SAE-1220-190-P1"	220	5.5	G1"	G1"	SAE	G1/4"	190
14767461	TIP VALVE HT-SAE-1220-220-P1"	220	5.5	G1"	G1"	SAE	G1/4"	220
14767463	TIP VALVE HT-SAE-1220-250-P1"	220	5.5	G1"	G1"	SAE	G1/4"	250

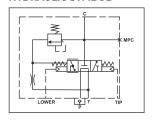


• SAE: SAE inlet of Hyva cylinder



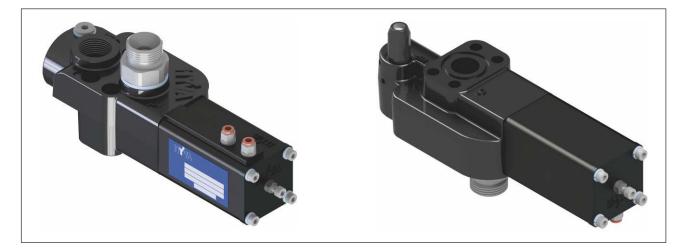
- 1 P Pump connection
- 2 T 3 C Tank connection
- Cylinder connection SAE
- Pneumatic connection (Tip) 6 mm
- 5 Pneumatic connection (Lower) 6 mm
- Pressure relief cartridge 6
- 7 MPC Measure Pressure Cylinder
  - (Pressure gauge point)
- Adjustment screw (int.hex. 5) (To adjust the lowering speed)

### HYDRAULIC SYMBOL



#### SAFETY:

HT valve fitted on cylinder (SAE) port provides hose burst safety function

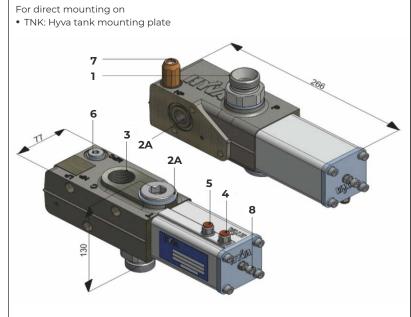




# **HT-1220 VALVES**

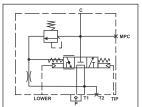
# HT-1220-TNK

Part no.	Description	Flow	Weight		Hydra	Max. Pressure			
		(L/min.)	(kg)	Р	TI	T2	С	МРС	(bar)
14767111	TIP VALVE HT-TNK-1220-110-P1"	220	6.1	G1"	G½"	G1"	G1"	G1/4"	110
14767113	TIP VALVE HT-TNK-1220-135-P1"	220	6.1	G1"	G½"	G1"	G1"	G¼"	135
14767115	TIP VALVE HT-TNK-1220-150-P1"	220	6.1	G1"	G½"	G1"	G1"	G¼"	150
14767117	TIP VALVE HT-TNK-1220-170-P1"	220	6.1	G1"	G½"	G1"	G1"	G¼"	170
14767119	TIP VALVE HT-TNK-1220-190-P1"	220	6.1	G1"	G½"	G1"	G1"	G¼"	190
14767122	TIP VALVE HT-TNK-1220-220-P1"	220	6.1	G1"	G½"	G1"	G1"	G¼"	220
14767125	TIP VALVE HT-TNK-1220-250-P1"	220	6.1	G1"	G½"	G1"	G1"	G¼"	250
14767128	TIP VALVE HT-TNK-1220-280-P1"	220	6.1	G1"	G½"	G1"	G1"	G¼"	280
14767135	TIP VALVE HT-TNK-1220-350-P1"	220	6.1	G1"	G½"	G1"	G1"	G1/4"	350



- Р Pump connection 2A T1 Tank connection
- 2B T2 Alternative tank connection
- 3 С Cylinder connection
- 4
- Pneumatic connection (Tip) 6 mm Pneumatic connection (Lower) 6 mm 5
- 6 MPC Measure Pressure Cylinder
  - (Pressure gauge point) Pressure relief cartridge
- 8 Adjustment screw (int.hex. 5)
  - (To adjust the lowering speed)

### HYDRAULIC SYMBOL



#### SAFETY:

HT valve fitted on cylinder (SAE) port provides hose burst safety function





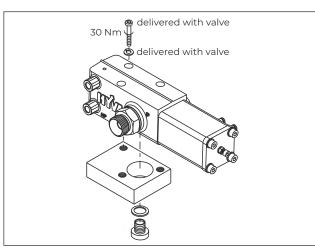
# **SPARE PARTS FOR HT-1220 VALVES**

# MOUNTING KITS

Mounting kits	Kit number
Cylinder (SAE)*	14735175
Tank (TNK)*	14735168
Chassis**	14735208
* included with valve ** not included with	_









### **SEAL KITS AND AIR ASSEMBLY PARTS**

Part no.	Description	Qty.
14844010	SEAL KIT PT/JT/HT VALVE	1
14810517	AIR COUPLING 1/8" - 6MM - 00	2



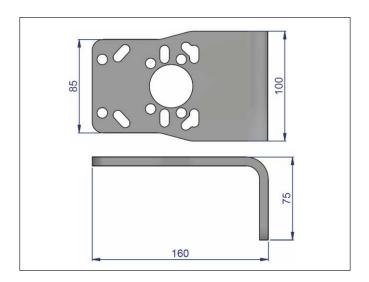




# **SPARE PARTS FOR HT-1220 VALVES**

# **CHASSIS MOUNTING BRACKET FOR HT-1220 VALVES**

Part no.	Description
09238050**	MOUNTING BRACKET HT/RELIEF/DIVERTER IN CHASSIS
** not included v	vith valve, to be ordered separately









# **HT-2220 TIPPING VALVES INTRODUCTION**

This series of valves is designed to be used with oil flows up to 220 litres per minute with dual maximum working pressure setting. This valve is the optimal choice for multi-functional systems – working, for example, with tipping cylinders and other applications such as walking floor systems or applications where the tipping cylinders on the truck and trailer operate with different working pressures. This is also a very good solution for customers who use two types of cylinders with higher and lower maximum working pressures.

This valve is available in TNK version to be mounted on the oil tank, using the mounting kit supplied with the valve. This way of mounting is the most popular for the semitrailer-tractor where the dual pressure feature is mostly required, but can also be applied to tipper trucks working with tipping trailers. Hyva oil tanks are compatible with this type of connection. The hydraulic connections are G 1" to enhance high oil flow capability. The valve is also equipped with a G 1/4" connection port for a pressure sensor and the pneumatic control port will connect with 6mm pneumatic hoses.

The valve spool design ensures precise operation – the lowering operation is proportional and the lowering speed can be adjusted.

# Hyva-HT-2220-TNK-MS (Mechanical Switch) tipping valves

The switch between the working pressures (Low Pressure to High Pressure) is executed manually by a switch on the valve. The working pressure range for the Lower Pressure range is from 110 to 190 bar and for the Higher Pressure from 220 to 350 bar. The maximum working pressures are set by Hyva's fixed value cartridge. The pressure cartridges used in this valve are fully interchangeable with other HT series valves.

### Hyva HT-2220-TNK-AS (Air Switch) tipping valves

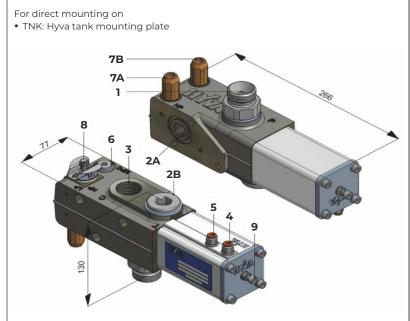
The switch between the working pressures (Low Pressure to High Pressure) is executed pneumatically by an air switch. This switch can be controlled remotely from the air control in the truck cabin with no need for the operator to step out. The working pressure range for the Lower Pressure range is from 150 to 190 bar and for the Higher Pressure from 220 to 350 bar. The maximum working pressures are set by Hyva's fixed value cartridges. The pressure cartridges used in this valve are fully interchangeable with other HT series valves.



# **HT-2220 VALVES**

# HT-2220-TNK (MECHANICAL SWITCH)

Part no.	Description	Flow	Weight	Hydraulic connections					Max. Pressure (bar)***		
		(L/min.)	(kg)	Р	т	T2	С	МРС	LP	HP	
14767150	TIP VALVE HT-TNK-2220-110-220-P1"	220	6.2	G1"	G½"	G1"	G1"	G1/4"	110	220	
14767152	TIP VALVE HT-TNK-2220-150-220-P1"	220	6.2	G1"	G½"	G1"	G1"	G1/4"	150	220	
14767155	TIP VALVE HT-TNK-2220-150-250-P1"	220	6.2	G1"	G½"	G1"	G1"	G1/4"	150	250	
14767158	TIP VALVE HT-TNK-2220-150-280-P1"	220	6.2	G1"	G½"	G1"	G1"	G1/4"	150	280	
14767165	TIP VALVE HT-TNK-2220-150-350-P1"	220	6.2	G1"	G½"	G1"	G1"	G1/4"	150	350	
14767172	TIP VALVE HT-TNK-2220-170-220-P1"	220	6.2	G1"	G½"	G1"	G1"	G1/4"	170	220	
14767175	TIP VALVE HT-TNK-2220-170-250-P1"	220	6.2	G1"	G½"	G1"	G1"	G1/4"	170	250	
14767178	TIP VALVE HT-TNK-2220-170-280-P1"	220	6.2	G1"	G½"	G1"	G1"	G1/4"	170	280	
14767185	TIP VALVE HT-TNK-2220-170-350-P1"	220	6.2	G1"	G½"	G1"	G1"	G1/4"	170	350	
14767172	TIP VALVE HT-TNK-2220-190-220-P1"	220	6.2	G1"	G½"	G1"	G1"	G1/4"	190	220	
14767175	TIP VALVE HT-TNK-2220-190-250-P1"	220	6.2	G1"	G½"	G1"	G1"	G1/4"	190	250	
14767178	TIP VALVE HT-TNK-2220-190-280-P1"	220	6.2	G1"	G½"	G1"	G1"	G1/4"	190	280	
14767185	TIP VALVE HT-TNK-2220-190-350-P1"	220	6.2	G1"	G½"	G1"	G1"	G1/4"	190	350	
*** The user	can select the maximum pressure setting by	, lifting and t	urning the	selector t	owards H	P or LP					



Р Pump connection 2A T1 Tank connection

Alternative tank connection 2B T2

3 C Cylinder connection

Pneumatic connection (Tip) 6 mm 4 5 Pneumatic connection (Lower) 6 mm

MPC Measure Pressure Cylinder 6

(Pressure gauge point)

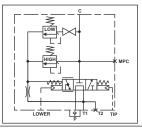
Pressure relief cartridge (HP)
Pressure relief cartridge (LP) 7A

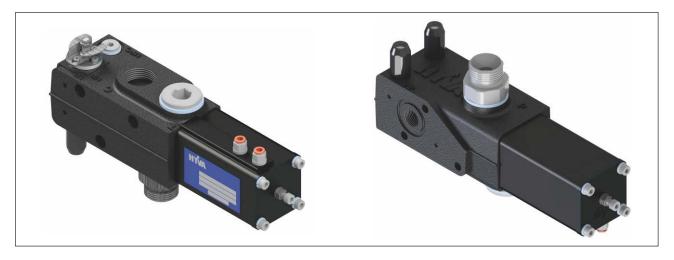
7В 8 Manual pressure selector

Adjustment screw (int.hex. 5) 9

(To adjust the lowering speed)

#### HYDRAULIC SYMBOL







# **HT-2220 VALVES**

# HT-2220-TNK (AIR SWITCH)

Part no.	Description	Flow	Weight		Hydrau	ılic conne	ections		Max. Press	ure (bar)***
		(L/min.)	(kg)	Р	т	T2	С	МРС	LP	HP
14767700	TIP VALVE HT-TNK-2220-150-220-AS-P1"	220	6.3	G1"	G½"	G1"	G1"	G1/4"	150	220
14767702	TIP VALVE HT-TNK-2220-150-250-AS-P1"	220	6.3	G1"	G½"	G1"	G1"	G1/4"	150	250
14767704	TIP VALVE HT-TNK-2220-150-280-AS-P1"	220	6.3	G1"	G½"	G1"	G1"	G1/4"	150	280
14767706	TIP VALVE HT-TNK-2220-150-350-AS-P1"	220	6.3	G1"	G½"	G1"	G1"	G1/4"	150	350
14767708	TIP VALVE HT-TNK-2220-170-220-AS-P1"	220	6.3	G1"	G½"	G1"	G1"	G1/4"	170	220
14767710	TIP VALVE HT-TNK-2220-170-250-AS-P1"	220	6.3	G1"	G½"	G1"	G1"	G1/4"	170	250
14767712	TIP VALVE HT-TNK-2220-170-280-AS-P1"	220	6.3	G1"	G½"	G1"	G1"	G1/4"	170	280
14767714	TIP VALVE HT-TNK-2220-170-350-AS-P1"	220	6.3	G1"	G½"	G1"	G1"	G1/4"	170	350
14767716	TIP VALVE HT-TNK-2220-190-220-AS-P1"	220	6.3	G1"	G½"	G1"	G1"	G1/4"	190	220
14767718	TIP VALVE HT-TNK-2220-190-250-AS-P1"	220	6.3	G1"	G½"	G1"	G1"	G1/4"	190	250
14767720	TIP VALVE HT-TNK-2220-190-280-AS-P1"	220	6.3	G1"	G½"	G1"	G1"	G1/4"	190	280
14767722	TIP VALVE HT-TNK-2220-190-350-AS-P1"	220	6.3	G1"	G½"	G1"	G1"	G1/4"	190	350
*** The user o	an select the maximum pressure setting by	lifting and to	urning the	selector t	owards H	P or LP		•		•

For direct mounting on

• TNK: Hyva tank mounting plate

1 P Pump connection

2A T1 Tank connection

2B T2 Alternative tank connection3 C Cylinder connection

4 Pneumatic connection (Tip) 6 mm

5 Pneumatic connection (Lower) 6 mm

6 MPC Measure Pressure Cylinder (Pressure gauge point)

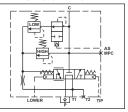
7A Pressure relief cartridge (HP)

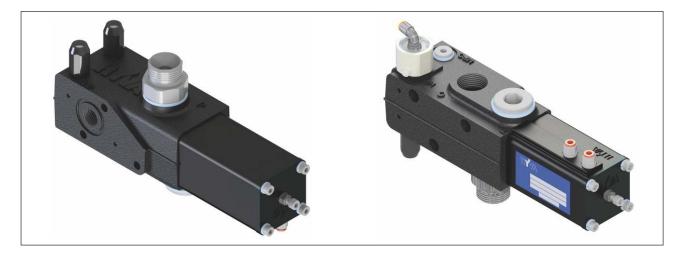
7B Pressure relief cartridge (LP) 8 Air switch (AS) 6 mm

(Pneumatic pressure selector)

Adjustment screw (int.hex. 5) (To adjust the lowering speed)

### HYDRAULIC SYMBOL





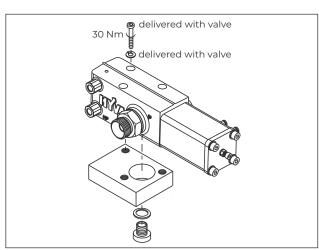


# **SPARE PARTS FOR HT-2220 VALVES**

# MOUNTING KITS

Mounting kits	Kit number
Tank (TNK)*	14735168
Chassis**	14735208
* included with valve	
** not included with v	ralve







# **SEAL KITS AND AIR ASSEMBLY PARTS**

Part no.	Description	Qty.
14844010	SEAL KIT PT/JT/HT VALVE	1
14810517	AIR COUPLING 1/8" - 6MM - 00	2



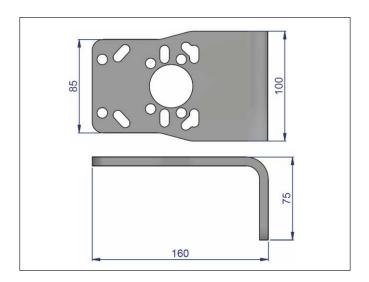




# **SPARE PARTS FOR HT-2220 VALVES**

# **CHASSIS MOUNTING BRACKET FOR HT-2220 VALVES**

Part no.	Description				
09238050**	MOUNTING BRACKET HT/RELIEF/DIVERTER IN CHASSIS				
** not included with valve, to be ordered separately					









# PRESSURE CARTRIDGE FOR HT-VALVE & PRESSURE TEST EQUIPMENT

# **CARTRIDGE PRESSURE RELIEF HT (FOR ALL HT-VALVES)**

Part no.	Description
14772110	CARTRIDGE PRESSURE RELIEF HT 110 BAR
14772135	CARTRIDGE PRESSURE RELIEF HT 135 BAR
14772150	CARTRIDGE PRESSURE RELIEF HT 150 BAR
14772170	CARTRIDGE PRESSURE RELIEF HT 170 BAR
14772190	CARTRIDGE PRESSURE RELIEF HT 190 BAR
14772220	CARTRIDGE PRESSURE RELIEF HT 220 BAR
14772250	CARTRIDGE PRESSURE RELIEF HT 250 BAR
14772280	CARTRIDGE PRESSURE RELIEF HT 280 BAR
14772350	CARTRIDGE PRESSURE RELIEF HT 350 BAR



Part no.	Description					
14745008	PRESSURE GAUGE COMPLETE CONSISTING OF:					
	PRESSURE GAUGE 400 BAR	1				
	ADAPTER M16 - 1/8"BSPOT	1				
	ADAPTER M16 - ¼"BSPOT	1				





# TIPPING VALVES INTRODUCTION

These valves are controlled mechanically by a cable system, and the knock-off function can also be activated mechanically. With these features, this valve is a very good choice for smaller trucks without a pneumatic supply system and underbody cylinders. The hydraulic connections are G  $\frac{1}{2}$  ". A pressure sensor can be also connected.

# Mechanical 40 and 80 Ltr. tipping valves

These smaller valves are designed for applications with small and medium size cylinders. Valves with oil flow of 40 litres per minute are a very good solution for small underbody cylinders, and valves with oil flow of 80 litres per minute are ideal for applications with medium size underbody tippers.

These valves are controlled pneumatically, and the knock-off function can be activated mechanically. With these features, this valve is a very good choice for smaller trucks with a pneumatic supply system and underbody cylinders. The hydraulic connections are  $G^{3}/4$  ". A pressure sensor can be also connected.

# Pneumatic 80 & 150 Ltr. tipping valves

Valves with oil flow of 80 litres per minute are designed for applications with small and medium size cylinders. Valves with oil flow of 150 litres per minute are designed for applications with medium and large size cylinder. Both types are ideal for applications with medium size underbody tippers.

These valves are controlled electrically. This solution is very good choice for smaller trucks without a pneumatic supply system and underbody cylinders. The hydraulic connections are  $G \frac{1}{2}$  ". A pressure sensor can be also connected.

#### **Electric tipping valves**

These valves are designed for applications with small size cylinders. Valves with oil flow of 40 litres per minute are ideal for applications with small size underbody tippers.



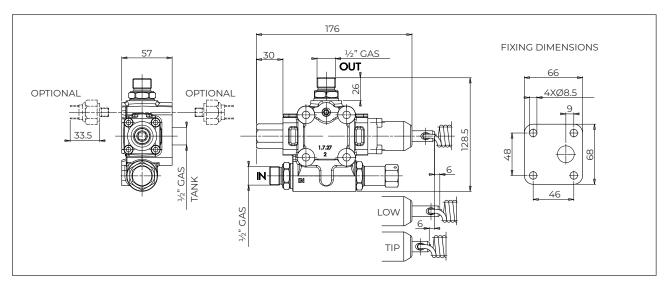
# **TIPPING VALVES MECHANICAL**

# **TIPPING VALVE MECHANICAL 40LTR - CABLE KNOCK-OFF**

Part no.	Description	Flow (L/min.)	Weight (kg)	Ports hydraulic	Relief valve setting (bar)*	Connection of cable**
021418150	TIP VALVE FM-40-140BAR MECHANICAL	40	2.5	G½"	140	BAYONET
021418151	TIP VALVE FM-40-180BAR MECHANICAL	40	2.5	G½"	180	BAYONET

<sup>\*</sup> These valves are standard set on 140-180 bar. The maximum setting is 220 bar and can be adjusted by the customer

<sup>\*\*</sup> You can find suitable cable controls with bayonet end on page 28 & 29





MOUNTING KIT	
Part no.	021418185

Part no.	Description
021416010	PRESSURE SWITCH HYD ADJ 350BAR 1/8"BSPOT

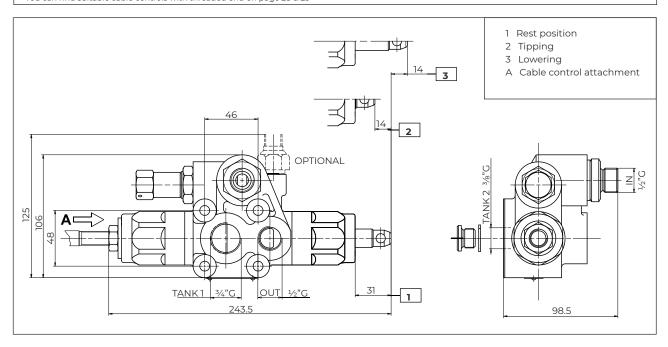




# **TIPPING VALVES MECHANICAL**

# TIPPING VALVE MECHANICAL 80LTR - CABLE KNOCK-OFF

Part no.	Description	Flow	Weight		Ро	Relief valve	Connection		
		(L/min.)	(kg)	TANK 1	OUT	TANK 2	IN	setting (bar)	of cable**
021418160	TIP VALVE 3/3-80-140-1/2" CABLE	80	2.5	G <sup>3</sup> /4"	G½"	G3/8"	G½"	140	THREADED
021418161	TIP VALVE 3/3-80-170-1/2" CABLE	80	2.5	G <sup>3</sup> / <sub>4</sub> "	G½"	G3/8"	G½"	170	THREADED
021418162	TIP VALVE 3/3-80-190-1/2" CABLE	80	2.5	G <sup>3</sup> /4"	G½"	G3/8"	G½"	190	THREADED
** You can find suitable cable controls with threaded end on page 28 & 29									





MOUNTING KIT					
8186					

Part no.	Description
021416010	PRESSURE SWITCH HYD ADJ 350BAR 1/8"BSPOT

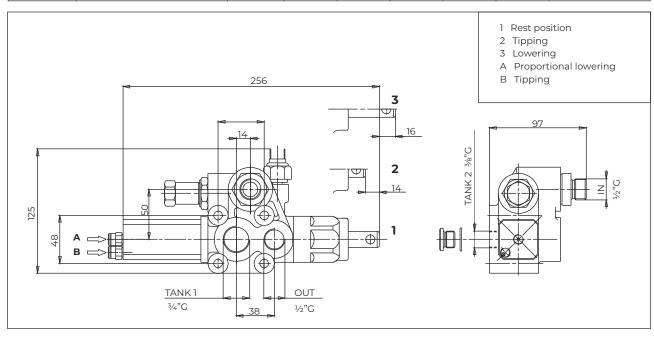




# **TIPPING VALVES PNEUMATIC**

# **TIPPING VALVE PNEUMATIC 80LTR - CABLE KNOCK-OFF**

Part no.	Description	Flow	Weight	Ports				Relief valve setting	
		(L/min.)	(kg)	TANK 1	OUT	TANK 2	IN	(bar)	
14767620	TIP VALVE 080-140-1/2" TOP PN	80	2.5	G <sup>3</sup> /4"	G½"	G3/8"	G½"	140	
14767622	TIP VALVE 080-170-1/2" TOP PN	80	2.5	G <sup>3</sup> /4"	G½"	G3/8"	G½"	170	





MOUNTING KIT	
Part no.	021418185

Part no.	Description
021416010	PRESSURE SWITCH HYD ADJ 350BAR 1/8"BSPOT

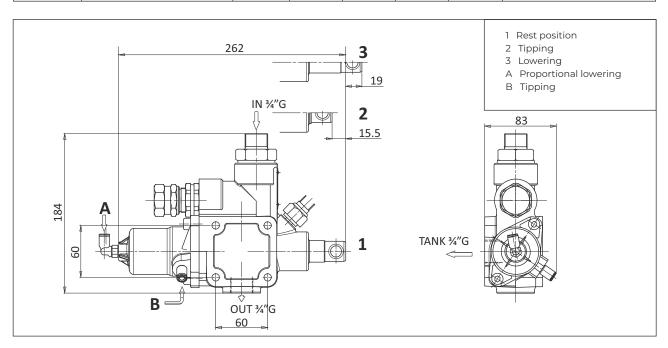




# **TIPPING VALVES PNEUMATIC**

# TIPPING VALVE PNEUMATIC 150LTR - CABLE KNOCK-OFF

Part no.	Description	Flow	Weight		Ports		Relief valve setting	
		(L/min.)	(kg)	TANK	OUT	IN	(bar)	
14767630	TIP VALVE 150-170-3/4" SIDE PN	150	5.8	G3/4"	G <sup>3</sup> / <sub>4</sub> "	G <sup>3</sup> / <sub>4</sub> "	170	





MOUNTING KIT	
Part no.	021418186

Part no.	Description
021416010	PRESSURE SWITCH HYD ADJ 350BAR 1/8"BSPOT

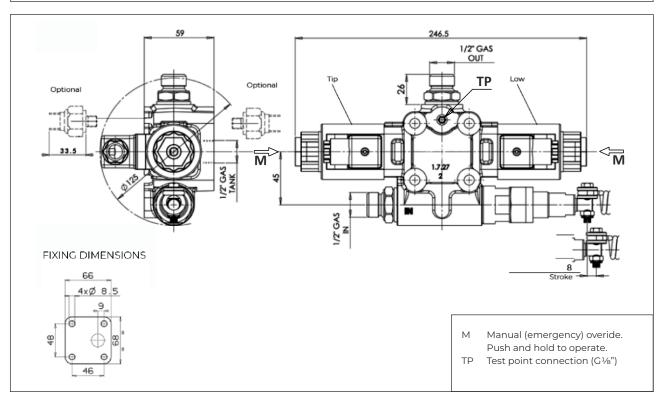


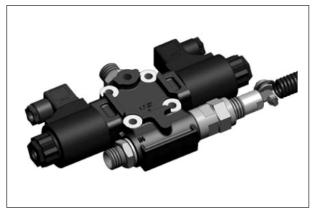


# **TIPPING VALVES ELECTRICAL**

# **ELECTRICAL TIPPING VALVE\***

Part no.	Description	Flow	Voltage	Weight	Ports			Relief valve setting
		(L/min.)	(V)	(kg)	TANK	OUT	IN	(bar)
14700094	TIPPING VALVE ELECTRICAL 12V-40L-140/190BAR	40	12	3.5	G½"	G½"	G½"	140 up to 190
14700106	TIPPING VALVE ELECTRICAL 24V-40L-140/190BAR	40	24	3.5	G½"	G½"	G½"	140 up to 190
* On the elec	* On the electrical tipping valve is no mechanical knock-off possible.							





# **MOUNTING KITS**

Part no.	Description
021418180	FOR MOUNTING ON 3-HOLE (HT) MOUNTING PLATE
021418185	FOR NATIVE 4-HOLE MOUNTING

Part no.	Description
021416010	PRESSURE SWITCH HYD ADJ 350BAR 1/8"BSPOT

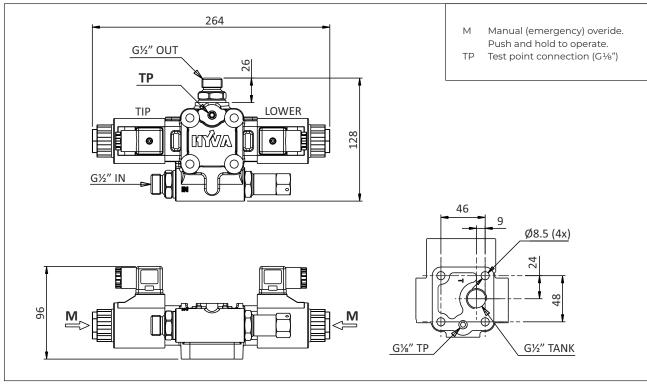


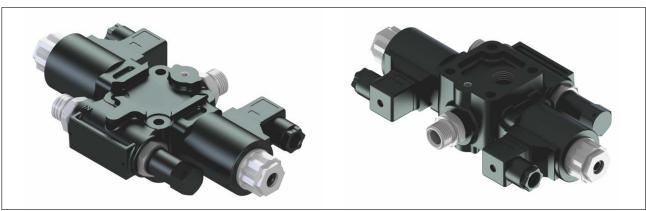


# **TIPPING VALVES ELECTRICAL**

# **ELECTRICAL TIPPING VALVE\***

Part no.	Description	Flow	Voltage	Weight	Ports			Relief valve setting
		(L/min.)	(V)	(kg)	TANK	OUT	IN	(bar)
021418100	TIPPING VALVE ELECTRICAL 12V-40L-140BAR	40	12	3.38	G½"	G½"	G½"	140
021418104	TIPPING VALVE ELECTRICAL 12V-40L-170BAR	40	12	3.38	G½"	G½"	G½"	170
021418140	TIPPING VALVE ELECTRICAL 24V-40L-140BAR	40	24	3.38	G½"	G½"	G½"	140
021418144	TIPPING VALVE ELECTRICAL 24V-40L-170BAR	40	24	3.38	G½"	G½"	G½"	170
021418147	TIPPING VALVE ELECTRICAL 24V-40L-190BAR	40	24	3.38	G½"	G½"	G½"	190
* On the electr	* On the electrical tipping valve is no mechanical knock-off possible.							





# MOUNTING KITS

Part no.	Description
021418180	FOR MOUNTING ON 3-HOLE (HT) MOUNTING PLATE
021418185	FOR NATIVE 4-HOLE MOUNTING

Part no.	Description
021416010	PRESSURE SWITCH HYD ADJ 350BAR 1/8"BSPOT





# MOUNTING ACCESSORIES FOR 40-80-150L TIPPING VALVES

# **ADAPTER KIT**

Part no.	Description
021418180	ADAPTER KIT 4 HOLE VALVE TO HYVA 3 HOLE PLATE



# MOUNTING KITS FOR 40L / 80L / 150L VALVES

Part no.	Description
021418185	MOUNTING KIT FOR VALVE 40L AND PNEUMATIC 80L
021418186	MOUNTING KIT FOR MECHANICAL VALVE 80L
021418187	MOUNTING KIT FOR PNEUMATIC VALVE 150L



# MOUNTING FLANGE

Part no.	Description
021418188	TANK MOUNTING FLANGE 40-80-150L TIP VALVE





# **ELECTRICAL ACCESSORIES FOR TIPPING VALVES**

# SWITCH PANEL ELECTRIC TIP/LOWER

Part no.	Description
02070121	SWITCH PANEL ELECTRIC TIP/LOWER



# **HYDRAULIC PRESSURE INDICATOR**

Part no.	Description				
14880789	PRESSURE SWITCH 300 BAR 1/4"BSPOTF-2 BAR-BAYON				
14880790DS	PRESSURE SWITCH 300 BAR 1/4"BSPOTF-2 BAR				
OPTIONAL PART	OPTIONAL PART				
14880791	PRESSURE SWITCH PROTECTIVE CAP (2-CABLE)				



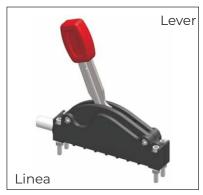






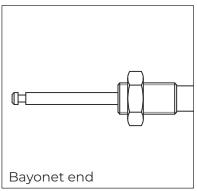
# **CABLE CONTROLS PARTS FOR VALVES**

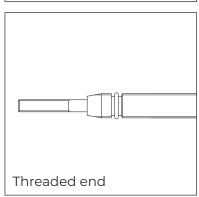
# LEVER, PUSH-PULL, THREADED AND BAYONET END CONNECTIONS FOR TIPPING VALVES











# CABLE CONTROL FOR TIPPING VALVE WITH FIXED POSITION 1 UP TO 4.5MTR.

Part no.	Description	Stroke	Transmitted force (N)		Version	End	Position
		(mm)	Pull	Push		connection	
021419370	CABLE CONTROL FOR VALVE FIXED POS. 1.0MTR.	40-55	600	350	LINEA-BLOCK	BAYONET	FIXED
021419371	CABLE CONTROL FOR VALVE FIXED POS. 1.2MTR.	40-55	600	350	LINEA-BLOCK	BAYONET	FIXED
021419372	CABLE CONTROL FOR VALVE FIXED POS. 1.5MTR.	40-55	600	350	LINEA-BLOCK	BAYONET	FIXED
021419373	CABLE CONTROL FOR VALVE FIXED POS. 2.0MTR.	40-55	600	350	LINEA-BLOCK	BAYONET	FIXED
021419374	CABLE CONTROL FOR VALVE FIXED POS. 2.5MTR.	40-55	600	350	LINEA-BLOCK	BAYONET	FIXED
021419375	CABLE CONTROL FOR VALVE FIXED POS. 3.0MTR.	40-55	600	350	LINEA-BLOCK	BAYONET	FIXED
021419376	CABLE CONTROL FOR VALVE FIXED POS. 3.5MTR.	40-55	600	350	LINEA-BLOCK	BAYONET	FIXED
021419377	CABLE CONTROL FOR VALVE FIXED POS. 4.0MTR.	40-55	600	350	LINEA-BLOCK	BAYONET	FIXED
021419378	CABLE CONTROL FOR VALVE FIXED POS. 4.5MTR.	40-55	600	350	LINEA-BLOCK	BAYONET	FIXED

# CABLE CONTROL FOR MECHANICAL PTO BAYONETT 1 UP TO 5MTR.

Part no.	Description	Stroke	Transmitted force (N)		Version	End	Position
		(mm)	Pull	Push		connection	
021419350	CABLE CONTROL 1.0MTR. BAYONETT FM40/PTO	40	600	350	LINEA	BAYONET	NO FIXED
021419351	CABLE CONTROL 1.5MTR. BAYONETT FM40/PTO	40	600	350	LINEA	BAYONET	NO FIXED
021419352	CABLE CONTROL 2.0MTR. BAYONETT FM40/PTO	40	600	350	LINEA	BAYONET	NO FIXED
021419353	CABLE CONTROL 2.5MTR. BAYONETT FM40/PTO	40	600	350	LINEA	BAYONET	NO FIXED
021419354	CABLE CONTROL 3.0MTR. BAYONETT FM40/PTO	40	600	350	LINEA	BAYONET	NO FIXED
021419355	CABLE CONTROL 3.5MTR. BAYONETT FM40/PTO	40	600	350	LINEA	BAYONET	NO FIXED
021419356	CABLE CONTROL 4.0MTR. BAYONETT FM40/PTO	40	600	350	LINEA	BAYONET	NO FIXED
021419357	CABLE CONTROL 4.5MTR. BAYONETT FM40/PTO	40	600	350	LINEA	BAYONET	NO FIXED
021419358	CABLE CONTROL 5.0MTR. BAYONETT FM40/PTO	40	600	350	LINEA	BAYONET	NO FIXED

# **CABLE CONTROL FOR TIP VALVE 3/3-80**

Part no.	Description	Stroke	Transmitted force (N)		Version	End	Position
		(mm)	Pull	Push		connection	
021419385	CABLE CONTROL VALVE THREAD. FIXED POS. 3.5MT	45-50	600	350	LINEA-BLOCK	THREADED	FIXED
021419387	CABLE CONTROL 4.5 M LINEA BLOCK-RED	45-50	600	350	LINEA-BLOCK	THREADED	FIXED
021419388	CABLE CONTROL FOR VALVE 4.5MT 3 POS.	45-50	600	350	LINEA	THREADED	NO FIXED



# **CABLE CONTROLS PARTS FOR VALVES**

# **CABLE CONTROL PUSH-PULL**

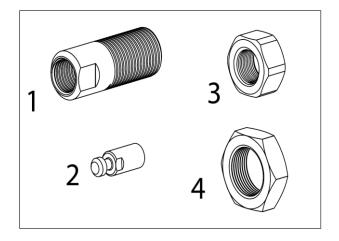
Part no.	Description	Stroke	Transmitted force (N)		Version	End	Position
		(mm)	Pull	Push		connection	
021419401	CABLE CONTROL PUSH-PULL 1.5MTRBAYONET	40	400	350	PUSH-PULL	BAYONET	NO FIXED
021419402	CABLE CONTROL PUSH-PULL 3MTRBAYONET	40	400	350	PUSH-PULL	BAYONET	NO FIXED

# CABLE CONTROL PTO PUSH-PULL

Part no.	Description	Stroke	Transmitted force (N)		Version	End	Position
		(mm)	Pull	Push		connection	
021419298	CABLE CONTROL PTO PUSH-PULL 1.5MTR.	40	400	350	PUSH-PULL	THREADED	NO FIXED
021419300	CABLE CONTROL PTO PUSH-PULL 2.5MTRM6	40	400	350	PUSH-PULL	THREADED	NO FIXED

# THREAD END TO BAYONET END FITTING KIT

Part no.	Description	Pos.
021419410	ADAPTER CABLE WITH THREAD TO BAYONET	
	- THREAD COUPLING M16 X M12	1
	- BAYONET TERMINAL	2
	- NUT M14	3
	- NUT M16	4





# **KNOCK-OFF VALVES INTRODUCTION**

#### Hyva knock-off valves

Knock-off valves are components which contribute to safe and long lasting operation of the tipping cylinder and overall hydraulic system. These valves are set in a way which limits the tipping angle before the cylinder reaches the end of the stroke and avoids unnecessary pressurising of the cylinder and overall system at full stroke of the cylinder.

Hyva offers three types of knock-off valves – pneumatic, hydraulic and electrical. The pneumatic version is connected to the tipping pneumatic control line and is mainly used for tipper truck applications. Within the pneumatic version there are two types available, STD (Standard) type for normal working conditions and HD (Heavy Duty) type for hard working and the most demanding applications. With the STD version, the knock-off is mounted, using a special bracket, on the cylinder cradle. The HD version can be mounted directly on the cylinder, Hyva ALPHA HD cylinders feature the mounting bracket for this type of knock-off valve.

Both types of pneumatic knock-off valves are characterised by precise operation, smooth activation and durability. They are connected to the pneumatic system by 6mm connectors and the activation angle can be easily and precisely adjusted.

Hydraulic knock-off valves are usually used for tipping trailer/semitrailer applications where the pneumatic control lines are complicated to apply. This type of valve disconnects the oil flow feeding the cylinder when it is activated. The activation may be direct by pushing the spool or by cable system, if required.

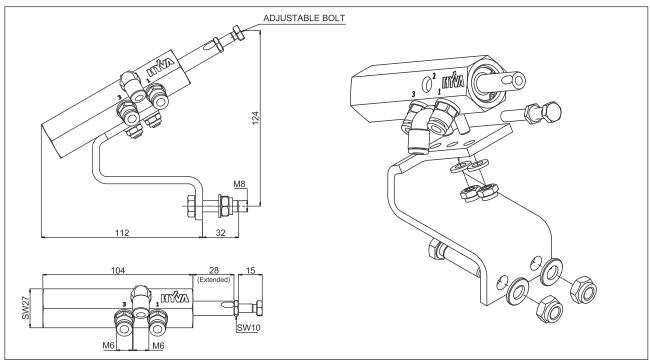
The electrical knock-off is normally used to cut off the power to either the mini power pack used to operate the light duty tippers or to our type electrical valves, always for light duty tippers, but in the versions with PTO and PUMP.



# **KNOCK-OFF VALVES PNEUMATIC**

# PNEUMATIC KNOCK-OFF - STANDARD\*

Part no.	Description	Max. working pressure (bar)	Stroke (mm)	Weight (incl. bracket) (kg)	Air tube size (mm)	Bolt adj. length (mm)
14700506	KNOCK-OFF VALVE PNEUMATIC WITH SUPPORT	10	15	0.6	Ø6	18
This knock-off is for mounting on the cradle *This knock-off will be delivered including mounting kit						



#### **SPARE PARTS**

Part no.	Description	Qty.
14700507	Seal kit	1
14810517	Air coupling straight - Ø6mm	2
14810566	Air coupling 90° - Ø6mm	1

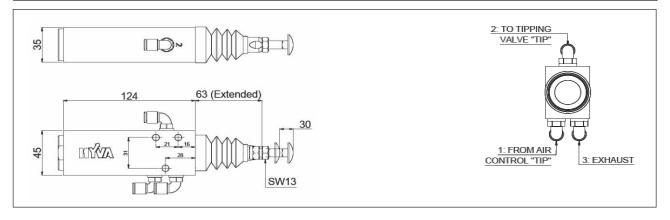




# **KNOCK-OFF VALVES PNEUMATIC**

# PNEUMATIC KNOCK-OFF - HEAVY DUTY\*

Part no.	Description	Max. working pressure (bar)	Stroke (mm)	Weight (kg)	Air tube size (mm)	Bolt adjustment length (mm)
14700575	KNOCK-OFF VALVE PNEUMATIC HD	10	30	0.7	Ø6	20
This knock-off is for mounting on the cylinder *This knock-off will be delivered including mounting kit 14700576						



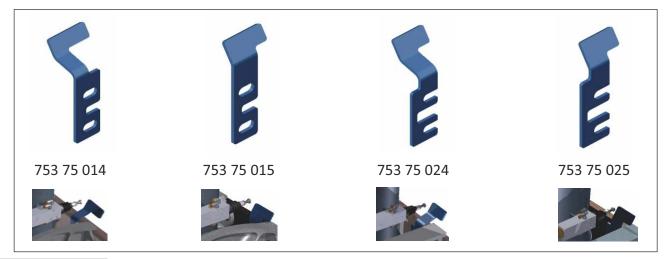
#### **SPARE PARTS**

Part no.	Description	Qty.
14700576	Mounting kit	1
14700577	Seal kit	1
14810566	Air coupling 90° - Ø6mm	1



# STOP PLATE FOR PNEUMATIC KNOCK-OFF - HEAVY DUTY

Part no.	Description	Bracket type	Width (mm)	Weight (kg)	Material	Kit no. incl. KO valve
75375014	STOP PLATE	CASTED	286	0.49	S235 JR EN10025-2	14700579
75375015	STOP PLATE	CASTED	368	0.50	S235 JR EN10025-2	14700578
75375024	STOP PLATE	WELDED	286	0.49	S235 JR EN10025-2	14700581
75375025	STOP PLATE	WELDED	368	0.44	S235 JR EN10025-2	14700580

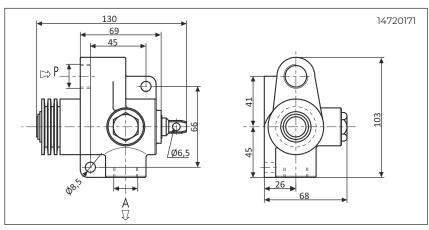




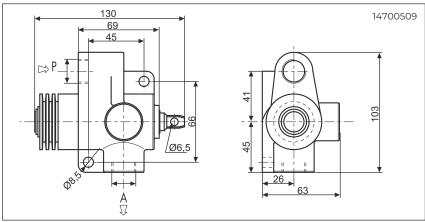
# **KNOCK-OFF VALVES HYDRAULIC**

# **HYDRAULIC KNOCK-OFF - STANDARD**

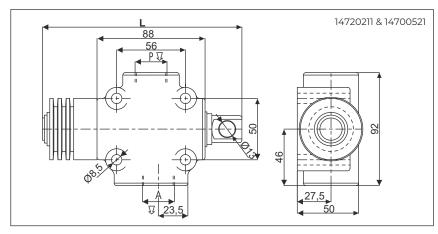
Part no.	Description	Max. working pressure (bar)	Type normally	Ports	Weight (kg)	Flow (L/min.)	L (mm)
14720171	KNOCK-OFF VALVE 2/2 60L 3/8" NORMALLY OPENED	350	OPENED	G3/8"	1.628	60	-
14720211	KNOCK-OFF VALVE 2/2 120L 3/4" NORMALLY OPENED	350	OPENED	G <sup>3</sup> /4"	2.112	120	173
14700509	KNOCK-OFF VALVE 3/8 60L NORMALLY CLOSED	350	CLOSED	G3/8"	1.648	60	-
14700521	KNOCK-OFF VALVE 2/2 120L 3/4" NORMALLY CLOSED	350	CLOSED	G3/4"	2.204	120	179





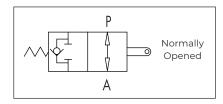


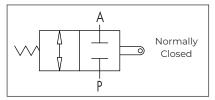






# HYDRAULIC SYMBOL



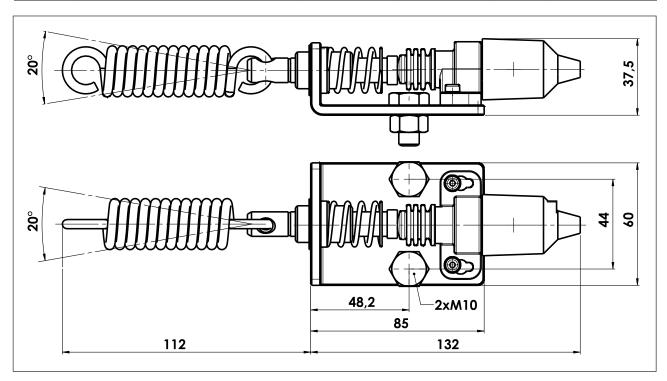


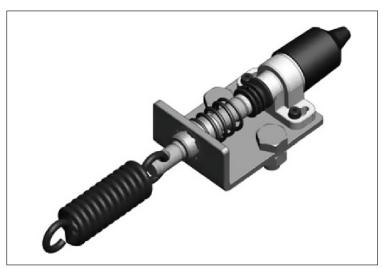


# **KNOCK-OFF VALVES ELECTRICAL**

# **ELECTRICAL KNOCK-OFF**

Pa	art no.	Description	Nominal voltage	Max. current	Enclosure	Working temperature
1/	1,000501	IANOCK OFF FLECTRICAL (DE INFORCER)	12V	25 A INDUCTIVE	IP67	2006 to (006
14886501	KNOCK-OFF ELECTRICAL (RE-INFORCED)	24V	15 A INDUCTIVE	1267	-20°C up to +40°C	







# OTHER VALVES INTRODUCTION

#### Pressure relief valve

Hyva offers two types of pressure relief valves, these components are critically important items as they are directly responsible for safety, to assure maximum level of confidence Hyva offers these high quality components.

The first type is a relief valve used as pressure limiting device for simple 2 line systems. These valves with ALU housing can be used working pressure up to 210 bar, the STEEL version is suitable to be used up to 350bar, the connections are  $\frac{3}{4}$  or 1", the nominal oil flow for these valves is 100L/min.

The other type is SAE type which can be mounted directly on the cylinder port of Hyva tipping cylinder, in such case this valve acts as additional safety device limiting pressure. These valves are factory presete to fixed pressure values of 150/170/190 bar and can work with oil flow of 150L/min.

#### Diverter valve

These components are used to divert the oil flow to sub-circuits to activate them or to reduce power consumption where some hydraulic functions are not in use. Hyva offers two types of diverter valves. The first type is manually operated, it is suitable to work with pressures up to 400bar, depending on the port sizes they can work with oil flows from 100/150/220 L/min.

The other type is pneumatically operated, this type can work with pressures up to 350bar, the nominal oil flows are 200/250 L/min.

#### Hose burst valve

The hose burst valve is a safety device mounted on the tipping cylinder inlet to secure the cylinder and the whole tipper in case of failure of the pressure hose feeding the cylinder.

In the event of a hose burst, the tipper body starts to lower in a very dynamic and dangerous way. If this happens, the hose burst valve activates at an oil flow of 215 litres per minute and slows down the lowering tipper and stops its movement by closing the oil flow. This prevents oil spillage, avoids contamination and prevents truck damage which could occur due to falling of the tipper body with load in it.

Designed as a safety device, the Hyva valve gradually stops the tipper motion which avoids dynamic pressure peaks in the cylinder which could lead to cylinder damage or even explosion and serious damage to the truck. Hyva hose burst valves are compatible with Hyva SAE cylinder ports. They are available for 190 and 250 bar cylinders and the hose connection is 1".

#### Non return valve

These additional components are responsible for directional flow of oil to avoid back pressure where not needed. Hyva offers standard items used in most common wet kits, the available sizes are <sup>3</sup>/<sub>4</sub> and 1", max working pressure is 350 bar, oil flows of 150/220 L/min depending on the size.

#### Flow restrictor valve

These valves are used in the applications where oil flow for given function needs to be precisely controlled to adjust its operation speed. Hyva offers two types of sizes –  $^3/_8$  and  $^3/_4$ ", the oil flows are 40/100 L/min respectively, the smaller size valve can work with 400bar and the other one with 300bar. The smaller size can be also supplied as fine adjustment version, this feature is very useful where highest precision of adjustment is needed.

#### **Multi-section valves**

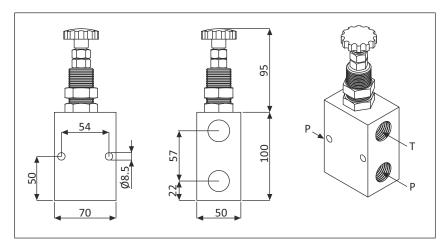
These valves are used in hydraulic systems where several hydraulic functions are used in addition to tipping cylinder. Hyva offers valves with 2/3/4 sections, these valves are available in several configurations and sizes, the working pressures are from 135 to 280 bar, the oil flows from 80 to 250 L/min. These valves are also available in several spool configurations where sections can be used for single or double acting cylinders.



# PRESSURE RELIEF VALVES

## PRESSURE RELIEF VALVE WITH ALUMINIUM BODY - ADJUSTABLE

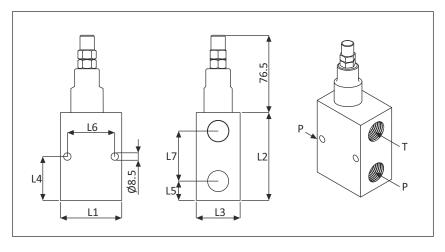
Part no.	Description	Working pressure (bar)	Poi	Ports		Weight
		(Dai)	Р	Т	(L/min.)	(kg)
01319875	PRESSURE RELIEF VALVE ADJ. 100L/50-210BAR ALU	50-210	G <sup>3</sup> /4"	G <sup>3</sup> /4"	100	1.1





#### PRESSURE RELIEF VALVE - ADJUSTABLE

Part no.	Description	Press.	Po	rts	Flow	Weight		L2	L3	L4	L5	L6	L7
		(bar)	Р	Т	(L/min.)	(kg)	(mm)						
01319880	PRESS. REL. VALVE 100L/50-210BAR ALU	150-210	G3/4"	G3/4"	100	1.1	70	100	50	50	22	54	57
01319885	PRESS. REL. VALVE 100L/180-350BAR STEEL	180-350	G3/4"	G3/4"	100	2.4	70	100	50	50	22	54	57
01319890	PRESS. REL. VALVE 100L/180-350BAR STEEL	180-350	G1"	G1"	100	2.4	85	120	60	63	30	65	65



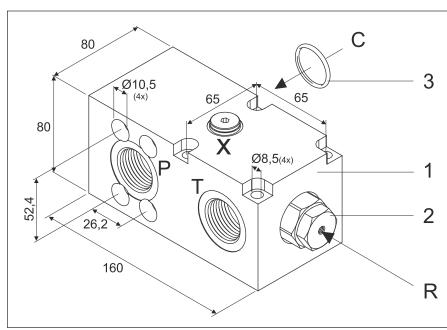




# PRESSURE RELIEF VALVES

#### PRESSURE RELIEF VALVE CM-SAE

Part no.	Description	Max. pressure	Max. pressure Port		Flow (L/min.)	Weight
		(bar)	Hydraulic (P+T)	Cylinder (C)	(L/min.)	(kg)
14701130	PRESSURE RELIEF VALVE CM SAE 150	150	G1"	1"SAE	150	2.5
14701150	PRESSURE RELIEF VALVE CM SAE 170	170	Gì"	1"SAE	150	2.5
14701160	PRESSURE RELIEF VALVE CM SAE 190	190	G1"	1"SAE	150	2.5



- P Pump connectionC Cylinder connection
- T Tank connection
- R Pressure relief cartridge
- X Pressure gauge connection 1/4"

#### **SPARE PARTS**

Pos.	Part no.	Description
1	14701155	Body
	14701154	Cartridge 150
2	14701156	Cartridge 170
	14701158	Cartridge 190
3	14701157	O-ring

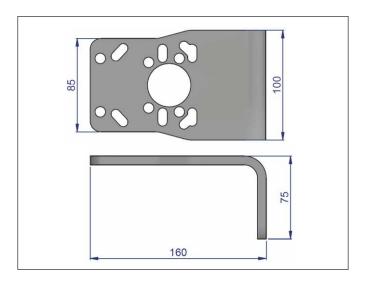


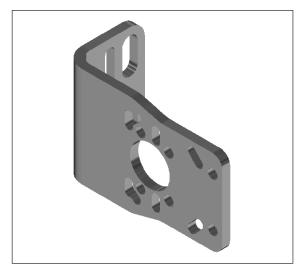


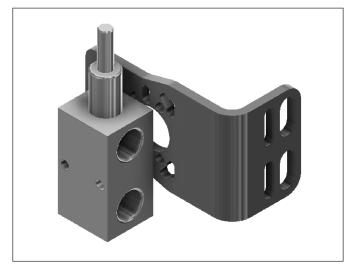
# **SPARE PARTS PRESSURE RELIEF VALVES**

#### CHASSIS MOUNTING BRACKET FOR PRESSURE RELIEF VALVES

Part no.	For Relief valves:							
09238050**	01319875 01319885							
09238050***	01319880	01319890						
** not included with valve, to be ordered	** not included with valve, to be ordered separately							





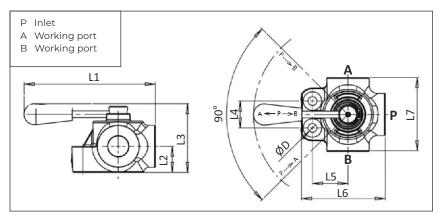




## **DIVERTER VALVES**

#### MANUAL OPERATED DIVERTER VALVES 3/3 WITH OPEN CENTRE

Part no.	Description	Max. pressure (bar)	Ports			Flow (L/min.)	Weight (kg)	
(bar)	Р	Α	В	(L/Min.)	(kg)			
021418010	DIVERT-VALVE MAN3/3-100L-400B-1/2"	400	G½"	G½"	G½"	100	1.8	
021418011	DIVERT-VALVE MAN3/3-150L-400B-3/4"	400	G <sup>3</sup> / <sub>4</sub> "	G3/4"	G3/4"	150	2.15	
021418012	DIVERT-VALVE MAN3/3-220L-400B-1"	400	G1"	G1"	G1"	220	3.7	



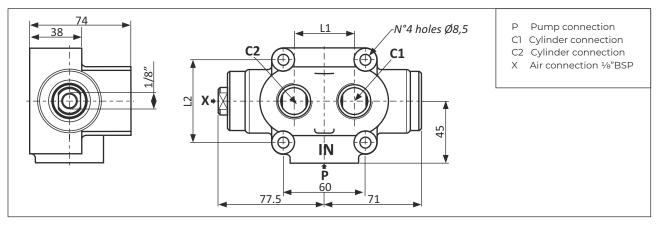


Part no.	Description	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	ØD (mm)
021418010	DIVERT-VALVE MAN3/3-100L-400B-1/2"	154.5	28.5	76	30	37	92	86	Ø11
021418011	DIVERT-VALVE MAN3/3-150L-400B-3/4"	155.5	31	82	32	42	99	87	Ø10.5
021418012	DIVERT-VALVE MAN3/3-220L-400B-1"	203	36	92.5	32	47	108.5	98	Ø11

These 3/3 diverter valves have an open middle position.

### PNEUMATIC OPERATED DIVERTER VALVES 3/2 WITH OPEN CENTRE

Part no.	Description	Max. pressure (bar)	Hydraulic ports P C1 C2		Flow (L/min.)	Weight (kg)	L1 (mm)	L2 (mm)	
		(Dai)			(L/IIIII.)	(Kg)	(11111)	(11111)	
021418000	DIVERT-VALVE PN-3/2-250L-350B-PO-3/4"-00	350	G1"	G <sup>3</sup> /4"	G <sup>3</sup> /4"	250	2.5	44	60
021418001	DIVERT-VALVE PN-3/2-250L-350B-PO-1"-00	350	G1"	G1"	G1"	250	2.5	50	65
021418002	DIVERT-VALVE PN-3/2-200L-350B-PO-3/4"-00	350	G <sup>3</sup> /4"	G <sup>3</sup> /4"	G <sup>3</sup> /4"	200	2.5	44	60



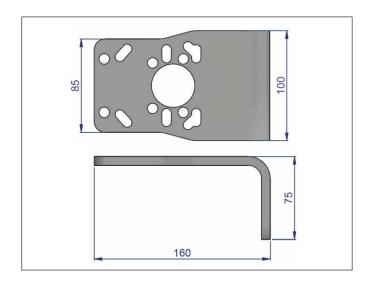


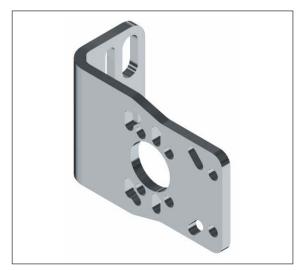


# **SPARE PARTS DIVERTER VALVES**

#### **CHASSIS MOUNTING BRACKET FOR DIVERTER VALVES**

Part no.	For diverter valves:
	021418000
09238050**	021418000
	021418001
** not included with valve, to be ordered separa	ately





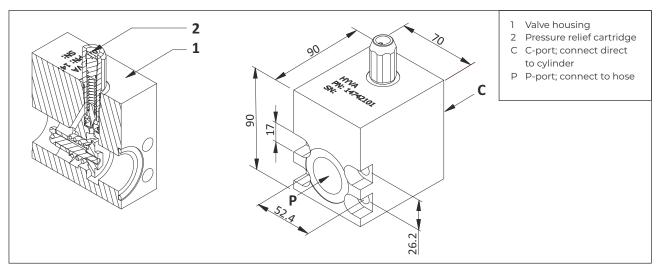




# **HOSE BURST VALVES**

## **HOSE BURST VALVE SAE WITH RELIEF**

Part no.	Description	Max. working pressure (bar)	Ports	Weight (kg)	Flow (L/min.)
14742101	HOSE BURST VALVE 1" SAE 250L/M - 190BAR	190	G1"	4.0	250
14742104	HOSE BURST VALVE 1" SAE 250L/M - 250BAR	250	G1"	4.0	250



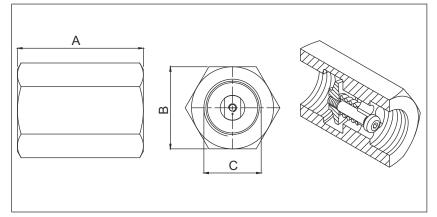
#### SPARE PARTS

Part no.	Description
14772190	Pressure relief cartridge 190 bar for valve 14742101
14772250	Pressure relief cartridge 250 bar for valve 14742104
14842209	Bonded seal



## **HOSE BURST VALVE**

Part no.	Description	Max. working pressure (bar)	Ports C	Flow (L/min.)	A (mm)	B (mm)
14742105	HOSE BURST VALVE 1/2" 90 L/M 315 BAR	315	1/4"BSP	90	57	27
14741410	HOSE BURST VALVE 1" 200 L/M 250 BAR	250	1"BSP	200	74	41
14741435	HOSE BURST VALVE 11/4"BSP 250L/M	250	1¼"BSP	250	92	60







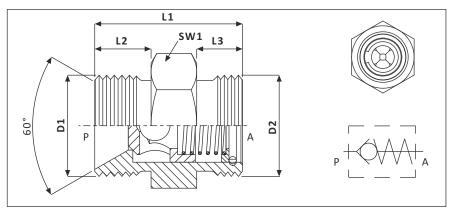
# **NON RETURN & FLOW RESTRICTOR VALVES**

#### **NON RETURN VALVE**

Part no.	Description	Max. working pressure (bar)	Flow (L/min.)	Weight (kg)	L1 (mm)	L2 (mm)	L3 (mm)	Sw1 (mm)	ØD1 (")	ØD2 (")
14739966	NON RETURN VALVE 3/4"BSPOT X 3/4"BSPOT	350	150	0.20	42	16	16	41	3/4	3/4
14739980	NON RETURN VALVE 1"BSPOT X 3/4"BSPOT	350	150	0.21	57.5	16.5	16	41	1	3/4
14739975 A	NON RETURN VALVE 1"BSPOT X 1"BSPOT	350	220	0.25	51.5	19	16.5	41	1	1

This valve ensures that the oil flow can only travel through the hydraulic system in one direction (from P to A).

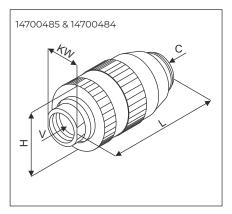
The 60° tapered P-port can be connected to a 1" swivel with internal 60° cone without a bonded seal. For all other types of connection a 1" bonded seal (01313848) is needed to prevent leakage of oil. The A-port of the valve must always have a 1" bonded seal. Mounting torque of the valve is 100 Nm.





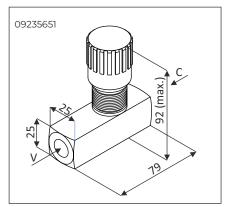
#### FLOW RESTRICTOR VALVES

Part no.	Description	Max. working pressure	Flow	Weight	Ports	Dimensions		ns
		(bar)	(L/min.)	(kg)		L (mm)	H (mm)	KW (mm)
14700485	VALVE RESTRICTOR 3/8" 400 BAR	400	40	0.6	G3/8"	72	42	24
14700484	VALVE RESTRICTOR 3/4" 300 BAR	300	100	0.5	G <sup>3</sup> /4"	100	55	36
09235651	RESTRICTOR VALVE 3/8" FINE ADJ.	400	40	0.5	G3/8"	-	-	-





C Cylinder connection
V Valve connection





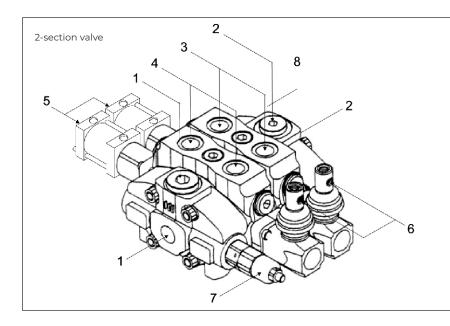
C Cylinder connection
V Valve connection



## **MULTI-SECTION VALVES**

#### **MULTI-SECTION VALVE**

Part no.	Description	Max. working pressure	Flow	Total	Ports			
	(bar) (L/mi		(L/min.)	sections	Р	(A/B)	Т	
14702610	SECTION VALVE 080-2-DA/SA-180-PN	180	80	2	G½"	G½"	G3/4"	
14702620	SECTION VALVE 080-2-DA/SA-280-L	280	80	2	G½"	G½"	G3/4"	
14703120	SECTION VALVE 140-2-DA/SA-280-PN	280	140	2	G <sup>3</sup> /4"	G <sup>3</sup> /4"	G1"	
14703125	SECTION VALVE 140-2-DA/SA-170-PN	170	140	2	G <sup>3</sup> /4"	G <sup>3</sup> /4"	G1"	
09235710	SECTION VALVE 160-2-DA/SA-170-PN	170	160	2	G1"	G1"	G1"	
14702710	SECTION VALVE 080-3-DA/SA/SA-180-PN	180	80	3	G½"	G½"	G3/4"	
14703210	SECTION VALVE 140-3-SA/DA/DA-170-L	170	140	3	G <sup>3</sup> /4"	G <sup>3</sup> / <sub>4</sub> "	G1"	
14703220	SECTION VALVE 140-3-SA/SA/DA-280-PN	280	140	3	G <sup>3</sup> /4"	G <sup>3</sup> /4"	G1"	
14705500	SECTION VALVE 160-3-DA/DA/SA-170-PN	170	160	3	G1"	G1"	G1"	
14705550	SECTION VALVE 160-3-DA/SA/DA-135-L	135	160	3	G1"	G1"	G1"	
14702810	SECTION VALVE 080-4-DA/DA/SA/SA-180-PN	180	80	4	G½"	G½"	G <sup>3</sup> / <sub>4</sub> "	
14702815	SECTION VALVE 080-4-DA/DA/SA/SA-280-PN	280	80	4	G½"	G½"	G3/4"	
14702820	SECTION VALVE 080-4-SA/SA/DA/DA-280-PN	280	80	4	G½"	G½"	G3/4"	
14703310	SECTION VALVE 140-4-DA/DA/SA/SA-280-PN	280	140	4	G <sup>3</sup> /4"	G <sup>3</sup> / <sub>4</sub> "	G1"	



- 1 Pump connection (**P**)
- 2 Tank connection" (**T**)
  Section 1 connection (**A/B**)
- 4 Section 2 connection (A/B)
- 5 Air actuator
- 6 Socket for handle
- 7 Pressure relief valve
- 8 Port relief valve

DA = Double acting section

SA = Single acting section

PN = Pneumatic operated

= Lever operated

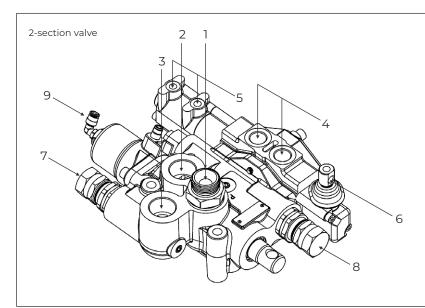




## **MULTI-SECTION VALVES**

#### **MULTI-SECTION VALVE**

Part no.	Description	Standard pressure	Max. pressure	Flow	Total	Ports				
		setting (bar)	setting (bar)	(L/min.)	sections	Р	С	(A/B)	Т	
14708852	SECTION VALVE 250-2-SA/DA-150-PN	150	280	250	2	G1"	G1"	G½"	G1"	
14708853	SECTION VALVE 250-3-SA/DA/DA-150-PN	150	280	250	3	G1"	G1"	G½"	G1"	
14708854	SECTION VALVE 250-2-SA/DA-190-PN	190	280	250	2	G1"	G1"	G½"	G1"	

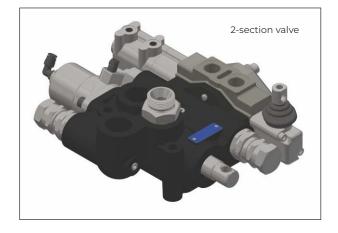


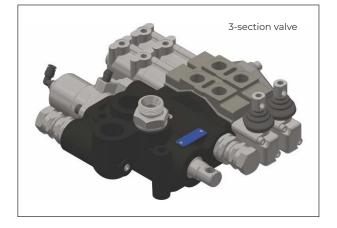
- Pump connection (**P**)
- 2 Tank connection (T)
- 3 Cylinder connection (C)
- 4 Section connection (A/B)
- 5 Pressure gauge connection G1/8"
- 6 Socket for handle
- 7 Tipper relief valve
- 8 Relief valve for auxiliary valves
- 9 Lowering pneumatic control (6mm air pipe)

DA = Double acting section

SA = Single acting section

PN = Pneumatic operated











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