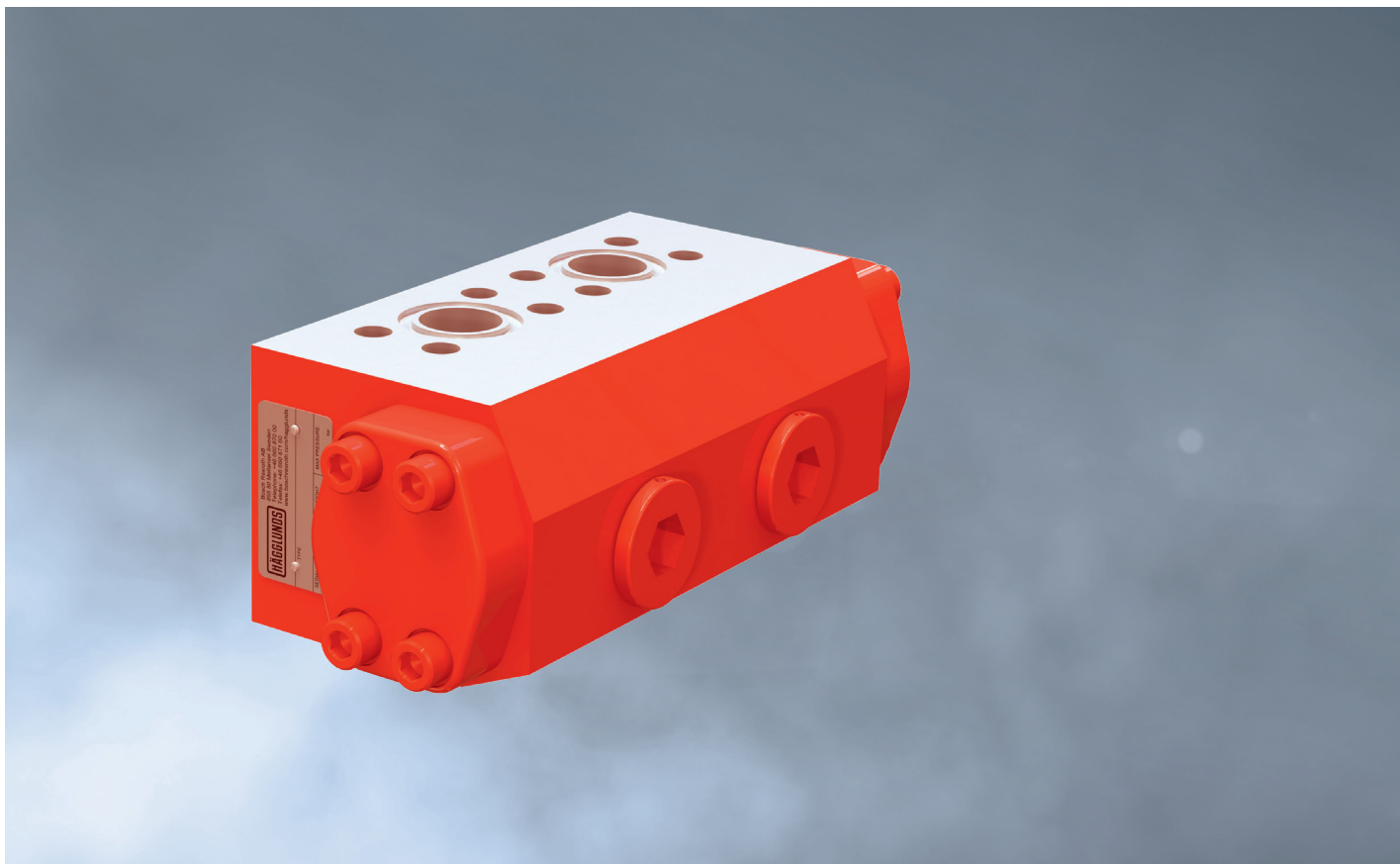


Valve adapters

# Häggglunds VA 1000



## HÄGGLUNDS VA 1000:

- Valid for Häggglunds CA, CB and CBm
- Maximum operating pressure 350 bar (5076 psi)
- Maximum flow 1000 l/min (264 gpm)

## FEATURES

- Compact and robust design
- Possibility to combine the valves and functions with each other
- Mounted directly on Häggglunds motors
- Make 4-port connection possible in combination with valves

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## 1 Safety instructions

### 1.1 Safety messages

This documentation includes safety messages placed before sequential operating procedures that may involve the risk of personal or property damage. The described precautionary measures must be observed.

Safety messages are structured as shown below:

 <b>SIGNAL WORD</b>
<b>Type and source of risk</b> Consequences if disregarded <ul style="list-style-type: none"> <li>▶ Precautionary measures</li> <li>▶ &lt;listing&gt;</li> </ul>




**Warning sign:** draws attention to the risk

**Signal word:** identifies the hazard level


**Type and source of risk:** identifies the type and source of the hazard

**Consequences:** describes what occurs when the safety messages are not complied with

**Precautions:** indicates how the hazard can be avoided

Warning sign, signal word	Meaning
 <b>DANGER</b>	Indicates a hazardous situation which, if not avoided, will result in death or serious injury.
 <b>WARNING</b>	Indicates a hazardous situation which, if not avoided, could result in death or serious injury.
 <b>CAUTION</b>	Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.
<b>NOTICE</b>	Indicates potential property damage: the product or the environment may be damaged.

The following symbols identify notices that are not safety-relevant, but enhance the comprehensibility of the documentation.

Symbol	Meaning
	When this information is not observed, optimum use or operation of the product cannot be ensured.
▶	Single, independent step
1.	Numbered instructions:
2.	The number indicates that the different steps are to be performed successively.
3.	

## 2 Ordering code

In order to identify Häggglunds equipment exactly, the following ordering code is used. These ordering codes should be fully stated in all correspondence e.g. when ordering spare parts.

Example: Adapter VA 1000 1:

<b>VA</b>	<b>1000</b>	<b>1</b>
01	02	03

01	<b>Valve adapter</b>	
		<b>VA</b>

02	<b>Frame size</b>	
	1000	<b>1000</b>

03	<b>Version (See Table 9, Table 10, Table 11)</b>	
	1 Two speed motors CA and valve VTCA 600 for port A1, C1	<b>1</b>
	2 Two speed motors CA and valve VTCA 600 for port A2, C2	<b>2</b>
	3 Minimize total height for valve adapter combination (CA, CB)	<b>3</b>
	6 Minimize total height for valve adapter combination with BICA, MDA and tandem (CA)	<b>6</b>
	15 For CBm motor (From SAE 2" to SAE 1 1/4")	<b>15</b>
	24 For valve VFWCB 600 in combination with tandem units CA 50 and CA 70	<b>24</b>
	31 For valve VCBCA 480 in combination with MDA (CA)	<b>31</b>
	32 For valve COCC 1200 in combination with tandem and 4-port connection (CA)	<b>32</b>
	33 For valve VFWCB 600 in combination with tandem CA 100, 140, 210 and MDA	<b>33</b>

### 3 Functional description

A range of valve adapters are available as accessories to the range of Häggglunds valves and motors. All adapters are designed for a pressure level of 350 bar (5076 psi) and a minimal pressure drop.

Some adapters can be used with tandem mounted motors or where 4 ports are required for the flow. Some adapters is also necessary to provide clearance to some valve- and motor configurations.

Selection of an adapter for a given valve and motor combination, or a combination of two valves, is shown in 5 *Combinations*.

The tables are based on standard adapter including 4-port connection. If 4-port connection is not needed a mini-mized adapter block height is available.

The adapters are all delivered with the necessary screws, washers and o-rings to install the valve or the combination of valves indicated.

## 4 Technical data

### 4.1 General data

	Metric	US
<b>Mechanical specification</b>		
Maximum Operating Pressure	350 bar	5 076 psi
Maximum Flow	1000 l/min	264 gpm
<b>Weight</b>		
VA 1000 1, -2	9 kg	20 lb
VA 1000 3	8 kg	18 lb
VA 1000 6, -24	12 kg	26 lb
VA 1000 15	30 kg	66 lb
VA 1000 31, -32, -33	27 kg	60 lb
<b>Surface treatment</b>		
VA 1000 1, -2, -15, -31, -32, -33	Zinc plated and passivated (Cr3)	
VA 1000 3, -6, -24	Black-oxide DIN 50938	

4.2 Hägglunds VA 1000 1, -2

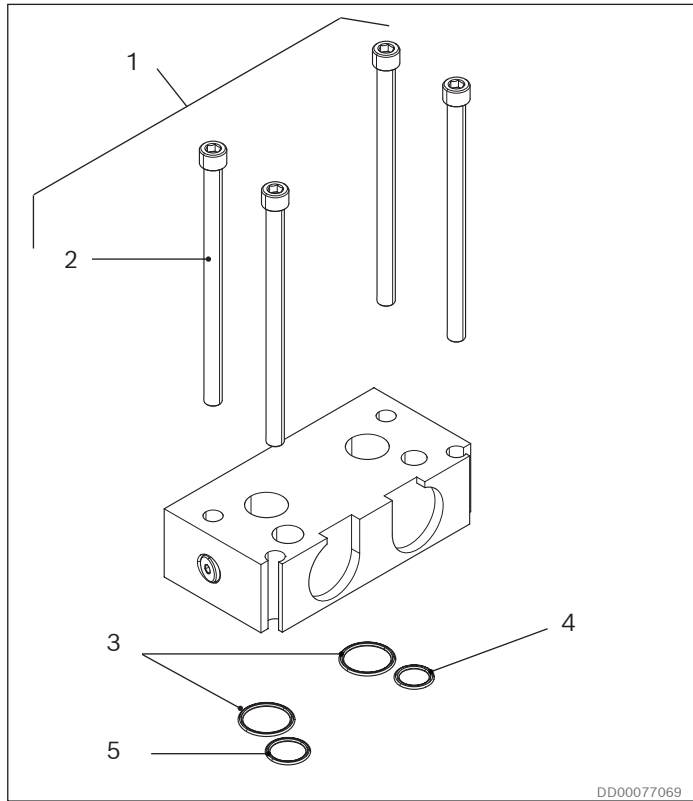


Fig. 1: Valve adapter VA 1000 1, -2

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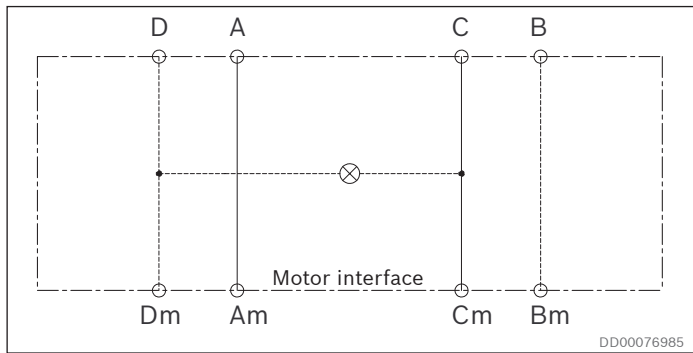


Fig. 2: Hydraulic diagram VA 1000 1

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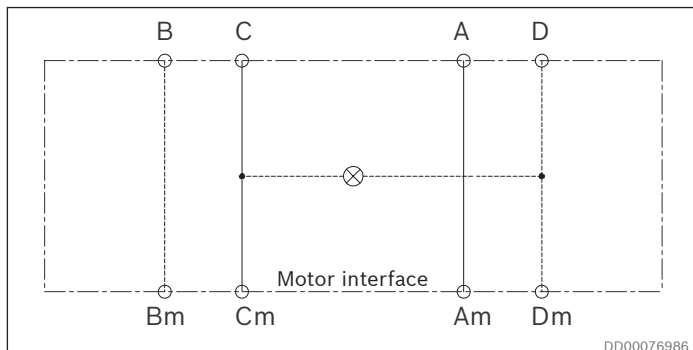


Fig. 3: Hydraulic diagram VA 1000 2

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Table 1: Material VA 1000 1 and VA 1000 2

Pos	Material ID	Description	Qty
1	R939002291	Adapter VA 1000 1 (pos 2-5 included)	1
	R939002292	Adapter VA 1000 2 (pos 2-5 included)	
2		Socket head cap screw 1/2 UNC x 178 (7")	4
		Tightening torque 131Nm (97 lb-ft)	
3		O-RING 64x2.62 FPM 70	2
4		O-RING 23.47x2.62 FPM 70	1
5		O-RING 59x2.62 FPM 70	1

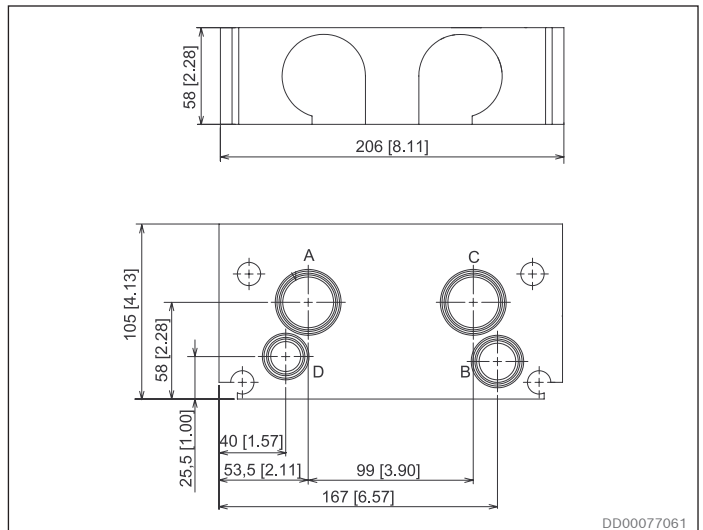


Fig. 4: Dimensions VA 1000 1

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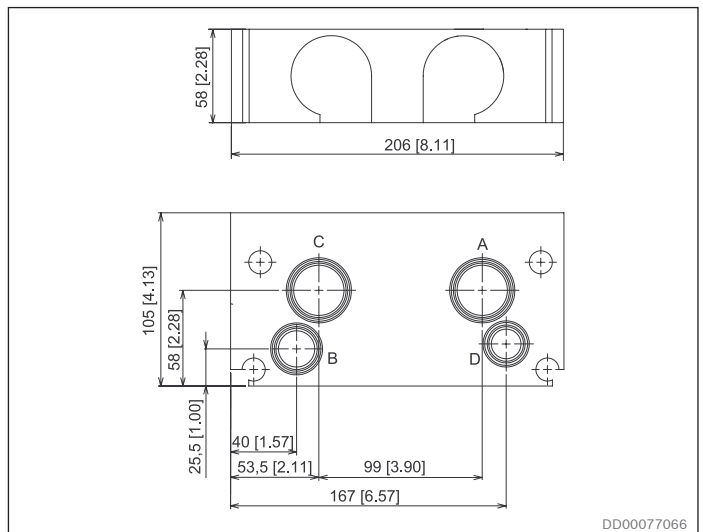


Fig. 5: Dimensions VA 1000 2

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Table 2: Hydraulic port

Ports	Description	Port diameter
Am, Cm	Main motor port	Ø 30.5 mm (1.20")
A, C	Main system port	Ø 30.5 mm (1.20")
B	Main system port	Ø 22 mm (0.87")
D	Drain port	Ø 18 mm (0.71")

### 4.3 Hägglunds VA 1000 3, -6, -24

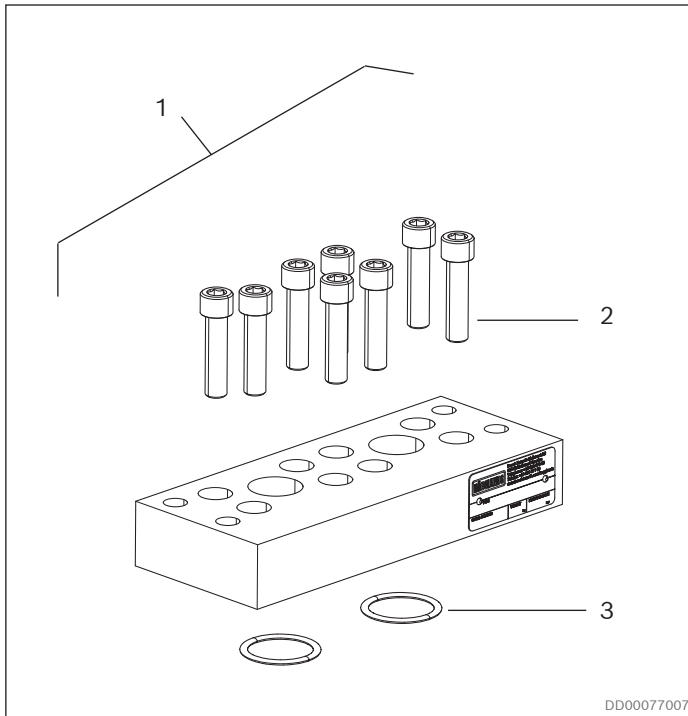


Fig. 6: Valve adapter VA 1000 3, -6, -24

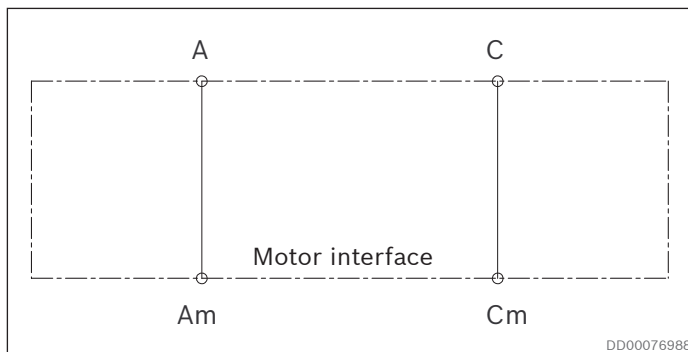


Fig. 7: Hydraulic diagram VA 1000 3, -6, -24

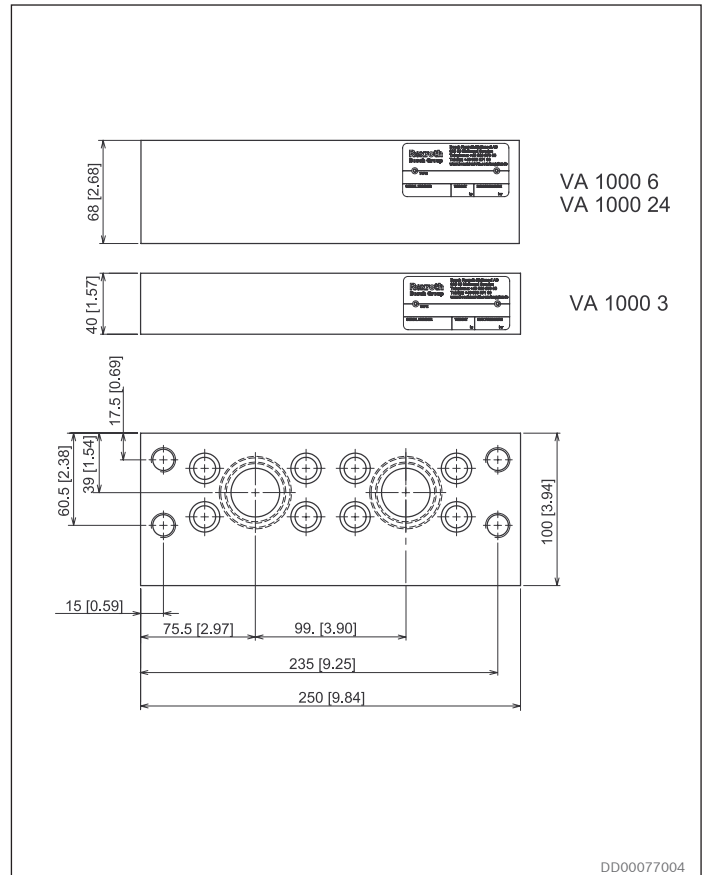


Fig. 8: Dimensions VA 1000 3, -6, -24

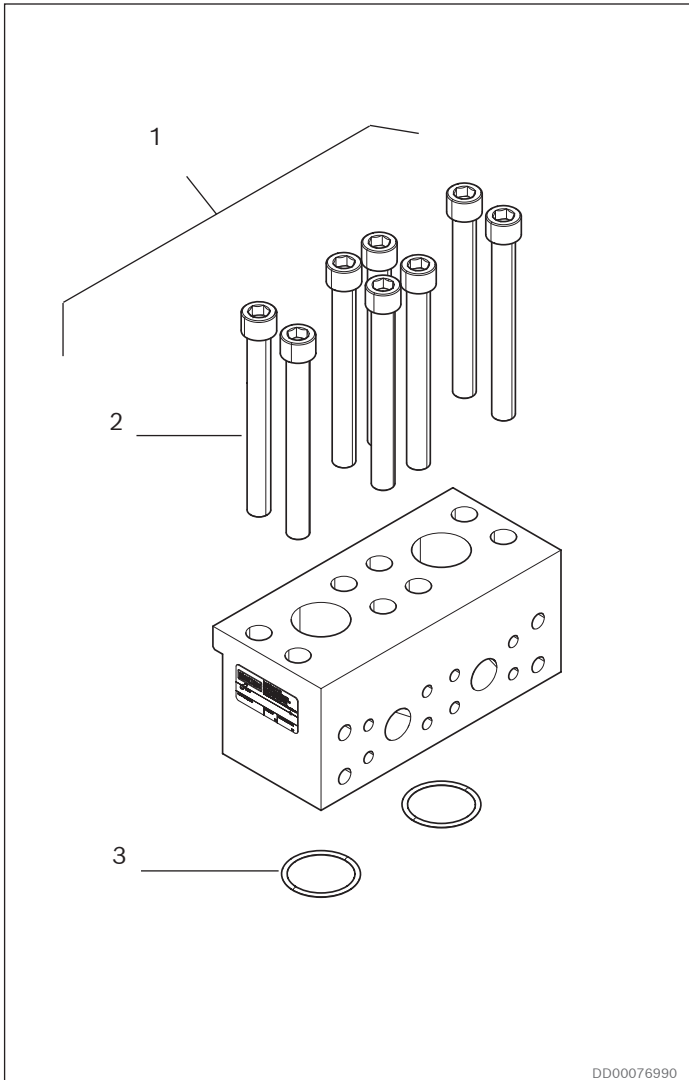
Table 3: Hydraulic ports

Port	Description	Port diameter
Am, Cm	Main motor port	Ø 32 mm (1.26")
A, C	Main system port	Ø 32 mm (1.26")

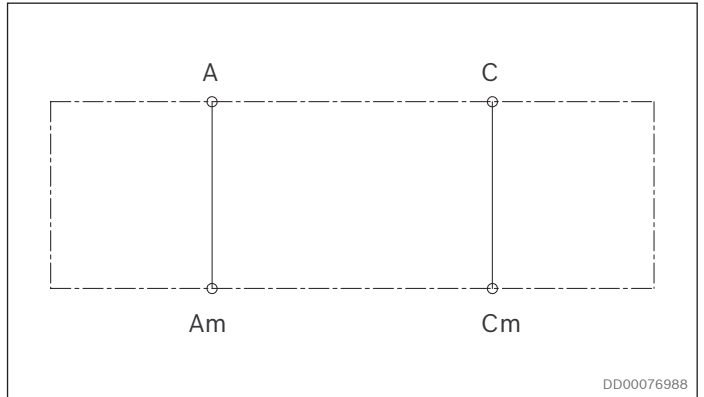
Table 4: Material VA 1000 3, -6, -24

Pos	Material ID	Description	Qty [pcs]		
			VA 1000 3	VA 1000 6	VA 1000 24
1	See "Qty"	Valve adapter Hägglunds VA 1000 3, -6, -24 (pos 2 and 3 included)	R939000018	R939000019	R939066916
2		Socket head cap screw, 1/2 UNC x 50.8 (2") Tightening torque 131Nm (97 lb-ft)	8		
2		Socket head cap screw, 1/2 UNC x 76.2 (3") Tightening torque 131Nm (97 lb-ft)		8	
2		Socket head cap screw, 1/2 UNC x 203.2 (8") Tightening torque 131Nm (97 lb-ft)			6
3		O-ring 40,87 x 3,53-NBR 90	2	2	2

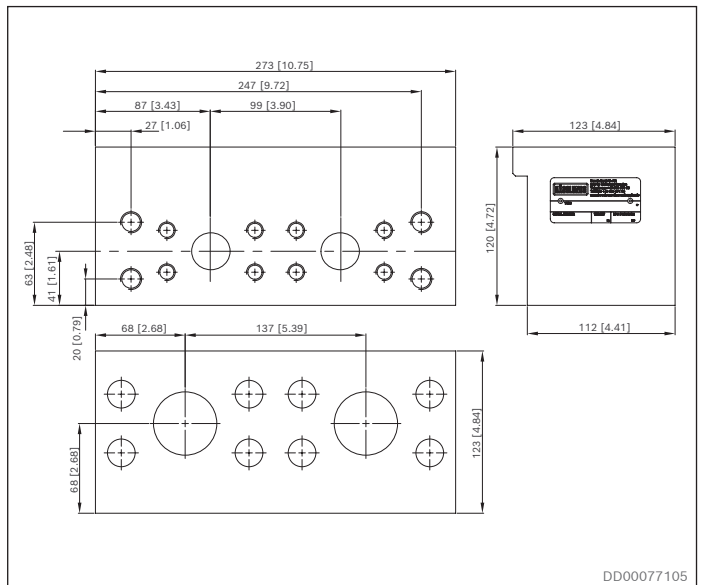
### 4.4 Hägglunds VA 1000 15



**Fig. 9: Valve adapter VA 1000 15**



**Fig. 10: Hydraulic diagram VA 1000 15**



**Fig. 11: Dimensions VA 1000 15**

**Table 5: Material VA 1000 15**

Pos	Material ID	Description	Qty
1	R939011952	Valve adapter Hägglunds VA 1000 15 (pos 2 and 3 included)	1
2		Socket head cap screw, 3/4 UNC x 178 (7")	8
3		O-ring 56,74 x 3,53 NBR 90	2

**Table 6: Hydraulic ports**

Port	Description	Port diameter
Am, Cm	Main motor connection	SAE 2" <sup>1)</sup>
A, C	Main system connection	SAE 1 1/4" <sup>1)</sup>

**1)** J518C, Code 62, 414 bar (6000 psi)

#### 4.5 Hägglunds VA 1000 31, -32, -33

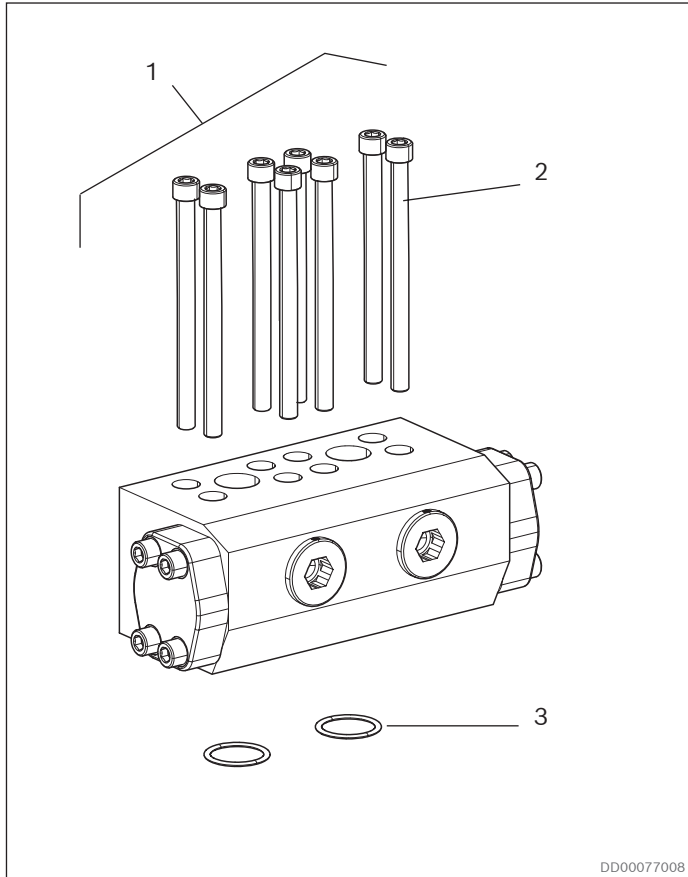


Fig. 12: Valve adapter VA 1000 31, -32, -33

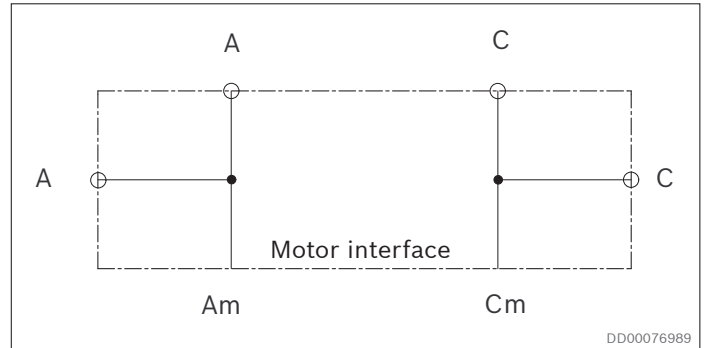


Fig. 13: Hydraulic diagram VA 1000 31, -32, -33

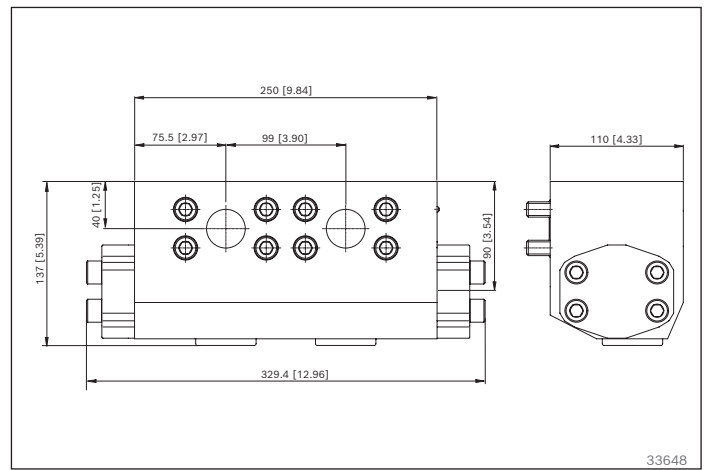


Fig. 14: Dimensions VA 1000 -31, -32, -33

**Note!** Included screws for the valve adapter replaces the screws for the valve.

Table 7: Hydraulic ports

Port	Description	Port diameter
Am, Cm	Main motor port	SAE 1 1/4" <sup>1)</sup>
A, C	Main system port	SAE 1 1/4" <sup>1)</sup>

1) J518C, Code 62, 414 bar (6000 psi)

Table 8: Material VA 1000 31, -32, -33

Pos	Material ID	Description	Qty [pcs]		
			VA 1000 31	VA 1000 32	VA 1000 33
1	See "Qty"	Valve adapter Hägglunds VA 1000 31 to VA 1000 33 (pos 2 to 3 included)	R939080036	R939073924	R939080054
2		1/2 UNC x 203 (8") Tightening torque 131Nm (97 lb-ft)	8		
2		1/2 UNC x 305 (12") Tightening torque 131Nm (97 lb-ft)		6	
2		1/2 UNC x 241 (9 1/2") Tightening torque 131Nm (97 lb-ft)			8
3		O-ring 40.87 x 3,53 NBR 90	2	2	2

## 5 Combinations

### 5.1 Examples, stacked combinations

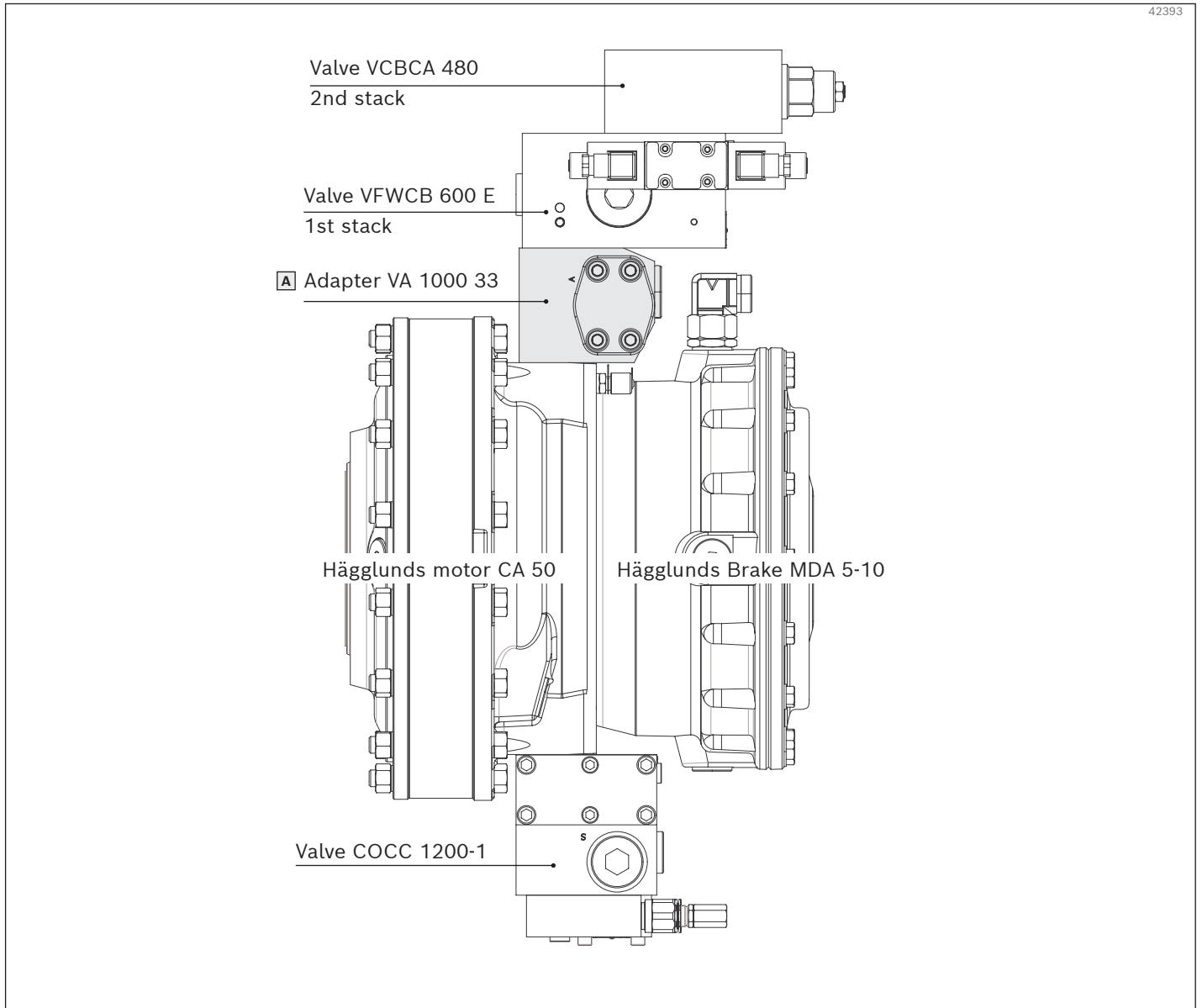
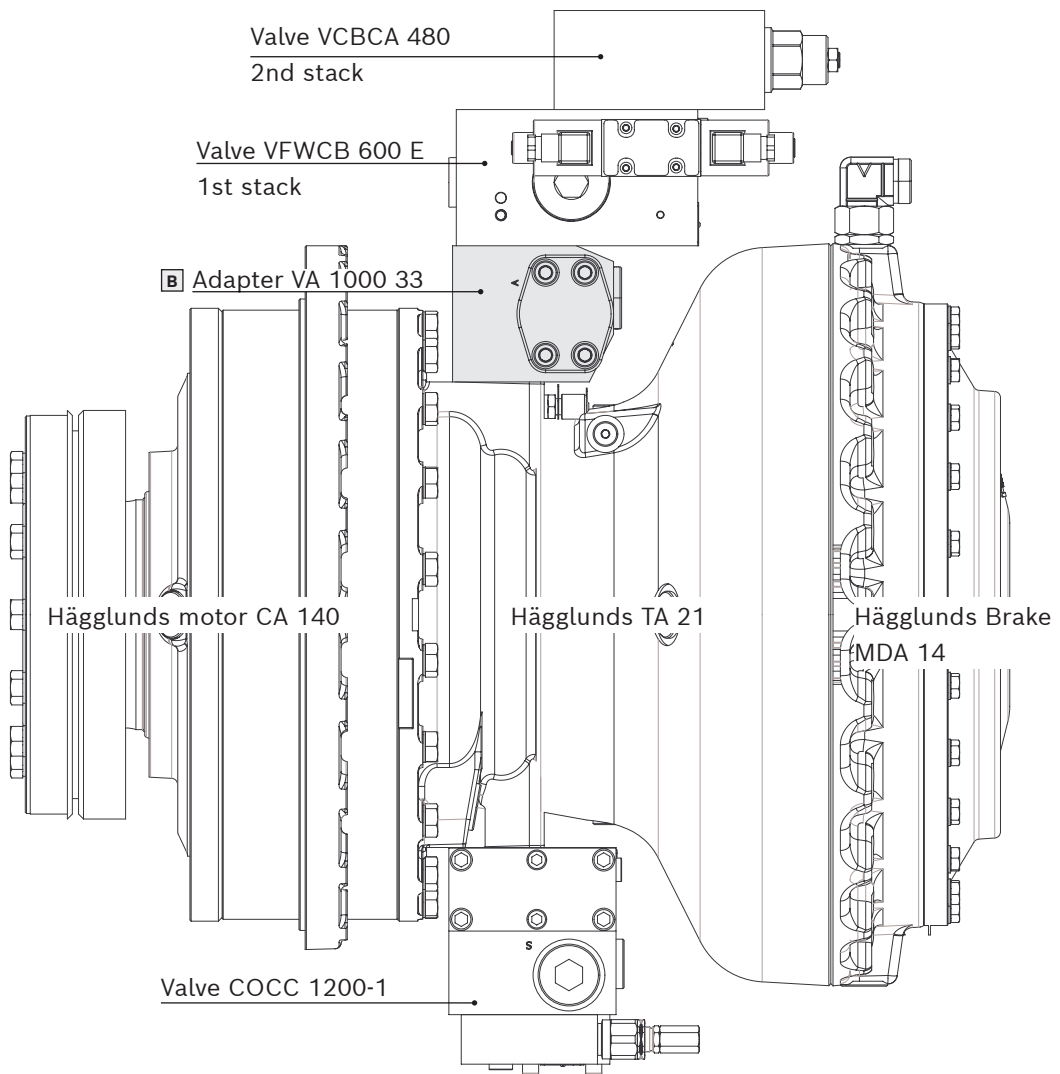
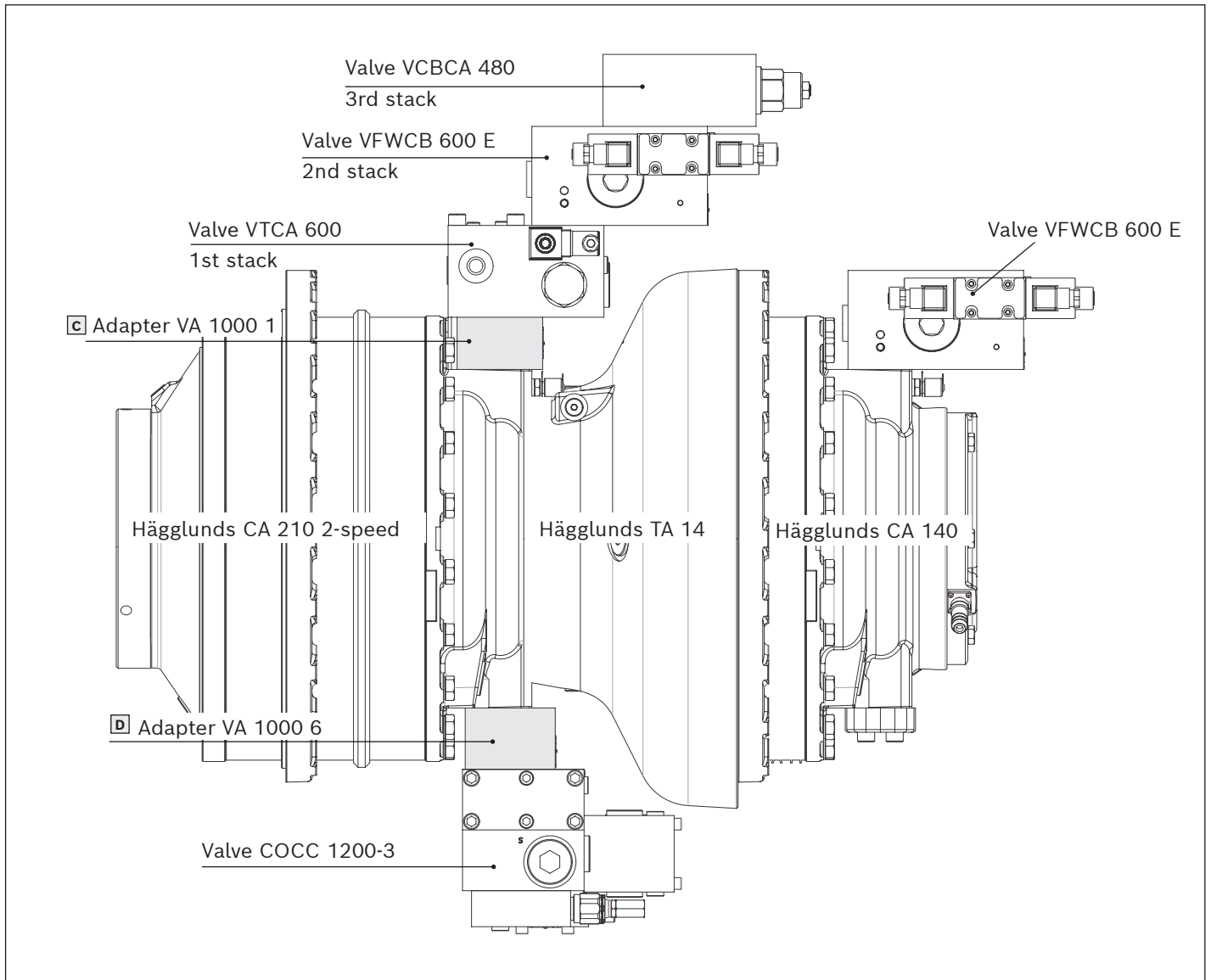


Fig. 15: Example stacked combinations valves and adapters with brake. (Note: A, see Table 9)

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**Fig. 16: Example stacked combinations valves and adapters with brake. (Note: B, see Table 9)**



**Fig. 17: Example stacked combinations valves and adapters with tandem mounted motor (Note: C, D see Table 9 and Table 11)**

## 5.2 Chart for choice of adapters for different combinations: motor -valve, -brake, -tandem

Table 9: Chart for CA motors

Valve closest to the motor. 1st stack	Option	Hägglunds CA standard motors	Hägglunds CA with tandem units at the back. Valve on the front motor. Hägglunds CA with brake MDA 14 with tandem mounting kit	Hägglunds CA with brake MDA 5/7/10	Hägglunds CA with brake BICA 13/24/37
<b>VTCA 600</b>		No need of adapter	VA 1000 1	No need of adapter	No need of adapter
<b>VCBCA 480</b>		No need of adapter	Not applicable	VA 1000 31	No need of adapter
<b>VCBCA 480 Used with Px and/or Cx ports</b>		No need of adapter	Not applicable	VA 1000 31	For <b>BICA 13</b> use: VA 1000 6,
<b>VFWCB 600</b>		No need of adapter	<b>CA 50, 70</b> VA 1000 24 <b>CA 100, 140, 210</b> VA 1000 33 <b>B</b>	VA 1000 33 <b>A</b>	No need of adapter
<b>COCC 1200-1</b>		No need of adapter	No need of adapter	No need of adapter	No need of adapter
	4-port connection	VA 1000 32	VA 1000 32	VA 1000 32	VA 1000 32
<b>COCC 1200-3</b>		No need of adapter	VA 1000 32	No need of adapter	No need of adapter
	Minimum height	No need of adapter	VA 1000 6* <b>D</b>	No need of adapter	No need of adapter
	4-port connection	VA 1000 32	VA 1000 32	VA 1000 32	VA 1000 32
<b>COCA 300</b>		No need of adapter	No need of adapter	No need of adapter	No need of adapter
<b>COCA 300 used with S-port</b>	Minimum height	No need of adapter	VA 1000 6	VA 1000 3	No need of adapter

\*Screw length 263 mm required. Contact your Bosch Rexroth representative for information

Table 10: Chart for CB and CBm motors

Valve closest to the motor. 1st stack	Option	Hägglunds CB	Hägglunds CBm
<b>VCBCA 480</b>		No need of adapter	Not applicable
<b>VCBCA 480 Used with Px and/or Cx ports</b>		No need of adapter	Not applicable
<b>VFWCB 600</b>			VA 1000 15
<b>COCC 1200-1</b>		No need of adapter	VA 1000 15
	4-port connection	VA 1000 32	VA 1000 15 Use motor connections A1-A6, C1-C6
<b>COCC 1200-3</b>		No need of adapter	VA 1000 15
	4-port connection	VA 1000 32	Use motor connections A1-A6, C1-C6

**Two or more valve combinations**

Applies to installations where more than one valve is mounted stacked together on a Hägglunds CA.











**Table 11: Stacked valves**

1st in stack (Valve closest to the motor)	Option	Motor combinations	CA 50/140 + MDA5-10*	CA 100/140 + TA 21 + MDA14	CA 100/140 + TA 21 + MDA14
		3rd in stack	CA 210 + TA 5 + CA 50	CA 210 + TA 10 + CA 100	CA 210 + TA 5 + CA 50
		2nd in stack	CA 210 + TA 7 + CA 70	CA 210 + TA 14 + CA 140	CA 210 + TA 7 + CA 70
			VCBCA 480	VCBCA 480	CA 210 + TA 10 + CA 100
					CA 210 + TA 14 + CA 140
					VCBCA 480
					VFWCB 600
<b>VFWCB 600</b>			VA 1000 33	VA 1000 33	Not applicable
	Min. height		VA 1000 6	Not applicable	Not applicable
<b>VTCA 600 0 **</b>			Not applicable	Not applicable	VA 1000 1 <span style="border: 1px solid black; padding: 0 2px;">C</span>

\* Minimum height only possible if 12 mm coupling is used

\*\* It is not possible to stack on top of VTCA 600 B

## 6 Required and additional documents

 Title	Document no	Document type
 VA 1000 15	041 0675*	Dimension drawing
 VA 1000 31, -32, -33	RA30030606*	Dimension drawing
 Hägglunds CA	<a href="#">RE 15305</a>	Data sheet
 Hägglunds CB	<a href="#">RE 15302</a>	Data sheet
 Hägglunds CBm	<a href="#">RE 15300</a>	Data sheet
 Hägglunds VTCA 600	<a href="#">RE 15389</a>	Data sheet
 Hägglunds VCBCA 480	<a href="#">RE 15378</a>	Data sheet
 Hägglunds VFWCB 600	<a href="#">RE 15380</a>	Data sheet
 Hägglunds COCC 1200	<a href="#">RE 15392</a>	Data sheet

\*Contact your Bosch Rexroth representative for information

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