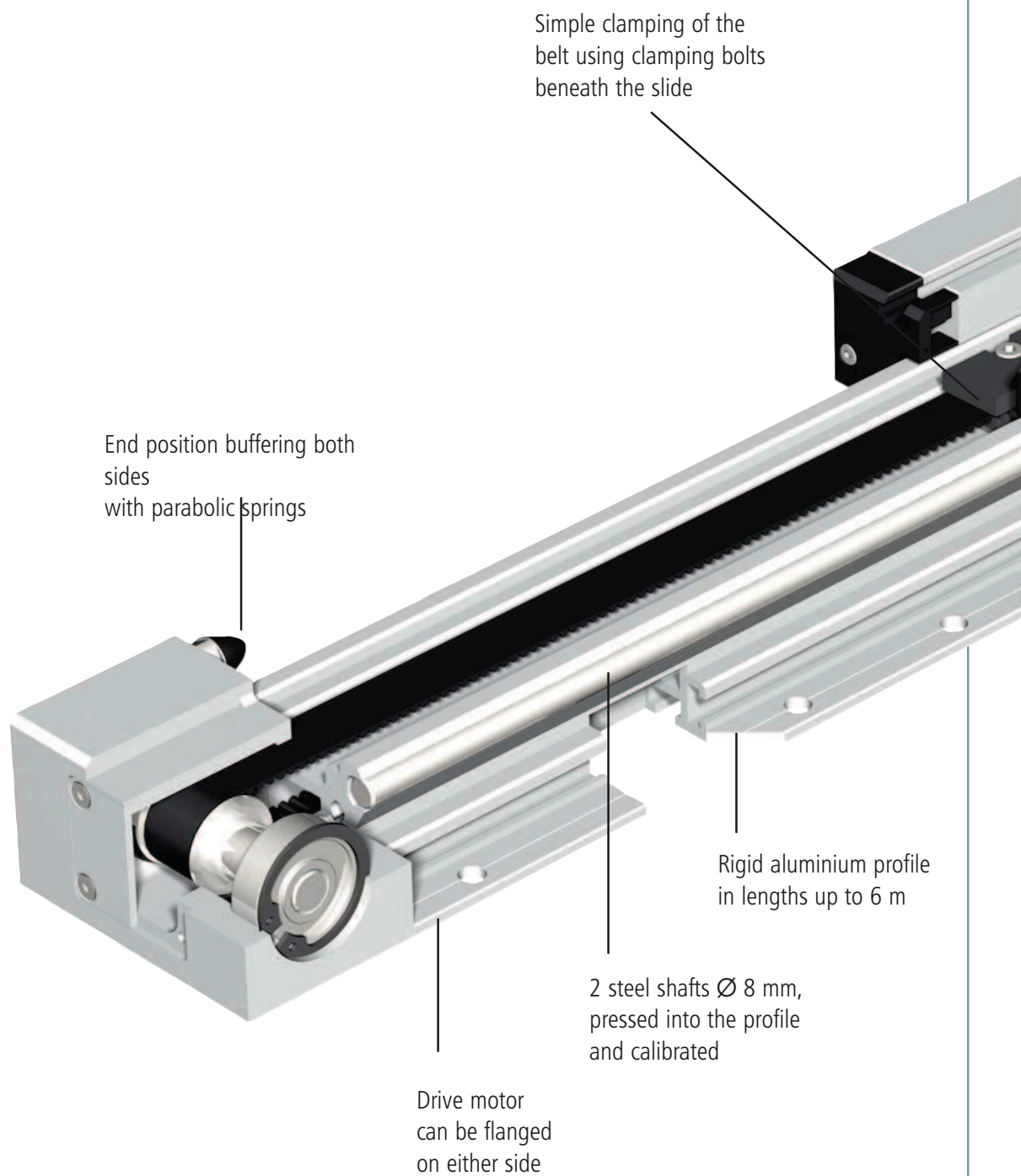


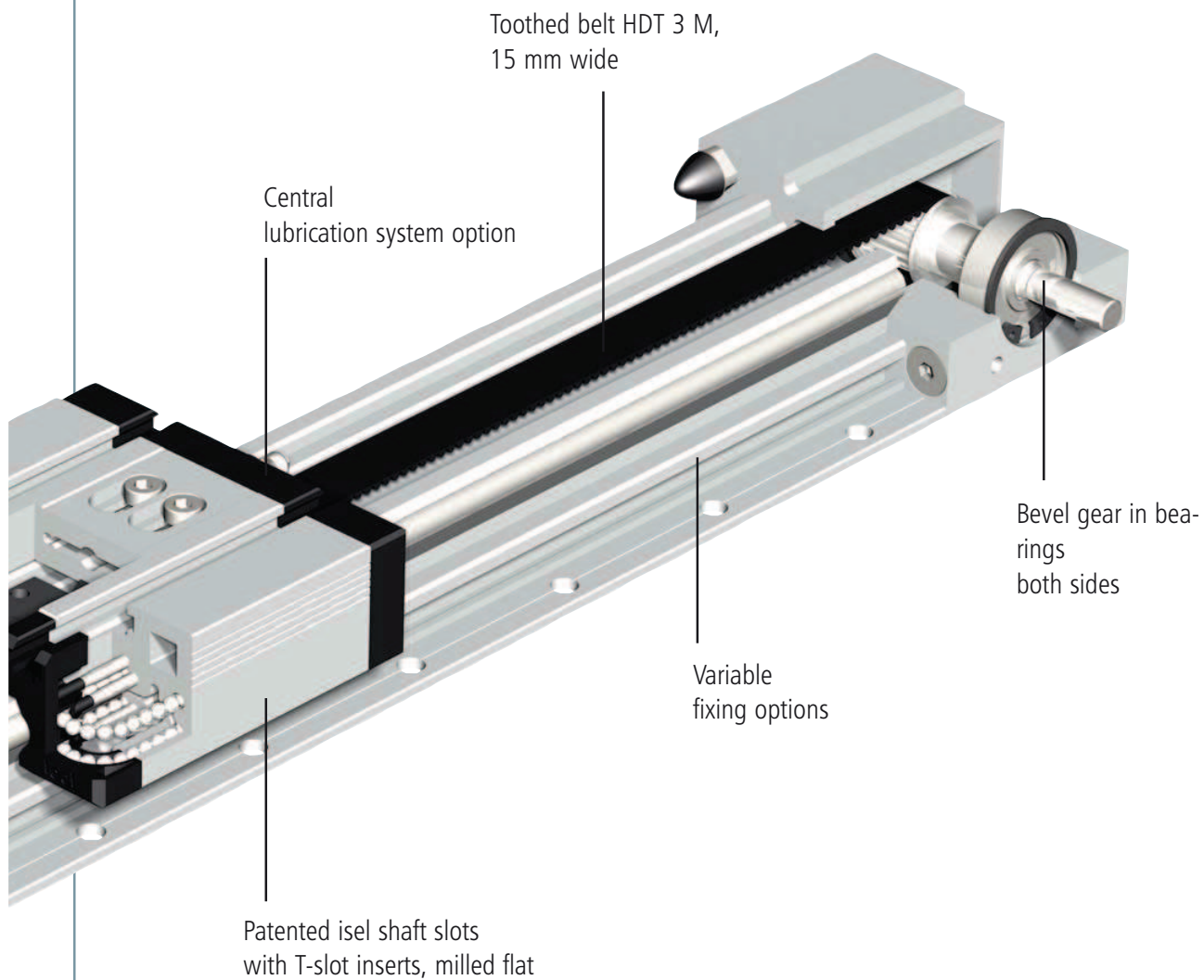
Functional overview

Linear unit with toothed belt drive



Functional overview

Linear unit with toothed belt drive



Linear units

with toothed belt drive

LEZ 3

Guides
and shaft slides
also available stainless.



with shaft slide



with trolley

Features

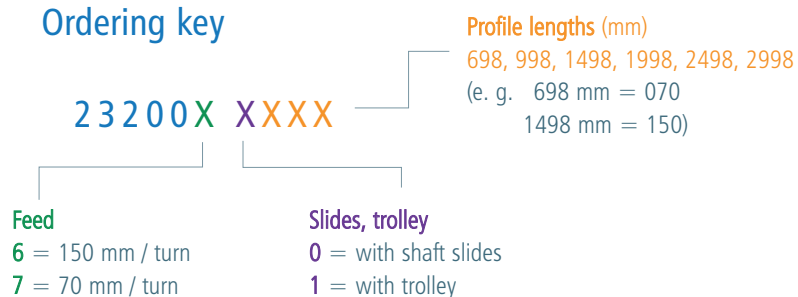
- Aluminium profile, miniature linear guide LFS-8-4
- No-play feed with toothed belt drive, toothed belt with 5 mm interval, width 25 mm
- Max. feed. 5 m/s
- Shaft slides WS3, L176 × W130 mm
- Feed per turn: 70 mm or 150 mm
- Repeat accuracy less than or equal to ± 0.2 mm
- Limit or reference switch accuracy < 0.1 mm
- Available in lengths up to 6,000 mm
- Motor modules can be flange-mounted on left or right side

Accessories can be found on page B-100.

Options:

- Special 100 mm raster lengths available to order, max. 6000 mm

Ordering key

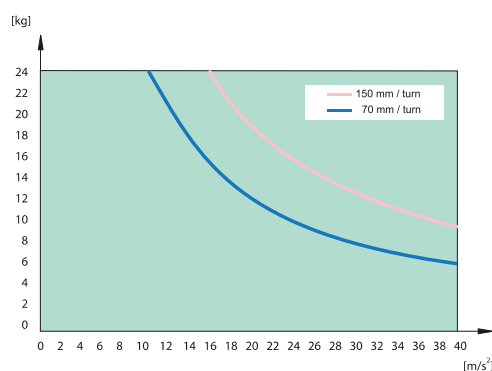


Technical specification

Belt type.....	HTD 5M, width 25 mm
Slide weight.....	0.940 kg
Weight without drive module.....	$1000 \text{ mm} \hat{=} 10.5 \text{ kg}$
specific weight of the toothed belt.....	0.09 kg/m
Roller carriage weight.....	2.03 kg
specific guide weight.....	0.648 kg/100 mm
Feed per turn.....	70 mm or 150 mm
Effective diameter of the synchronous disks	
Feed 70 mm/turn.....	22.28 mm
Feed 150 mm/turn.....	47.75 mm
Moment of inertia of the synchronous disks	
Feed 70 mm/turn.....	$5.58 \cdot 10^{-6} \text{ kgm}^2$
Feed 150 mm/turn.....	$1,796 \cdot 10^{-4} \text{ kgm}^2$

Load diagram

Permitted accelerated weights relative to the belt strength.*



* with vertical construction, the acceleration due to gravity ($g = 9.81 \text{ m/s}^2$) must be considered

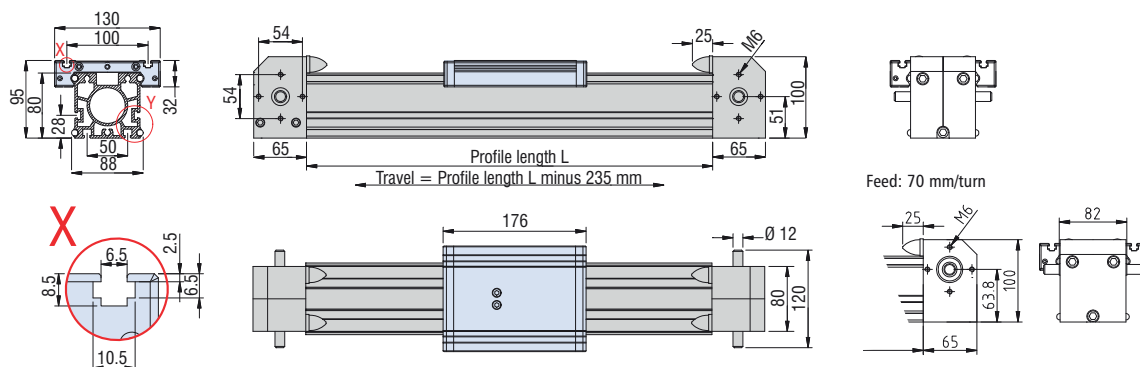
Bending data can be found on page B-27.

Linear units with toothed belt drive

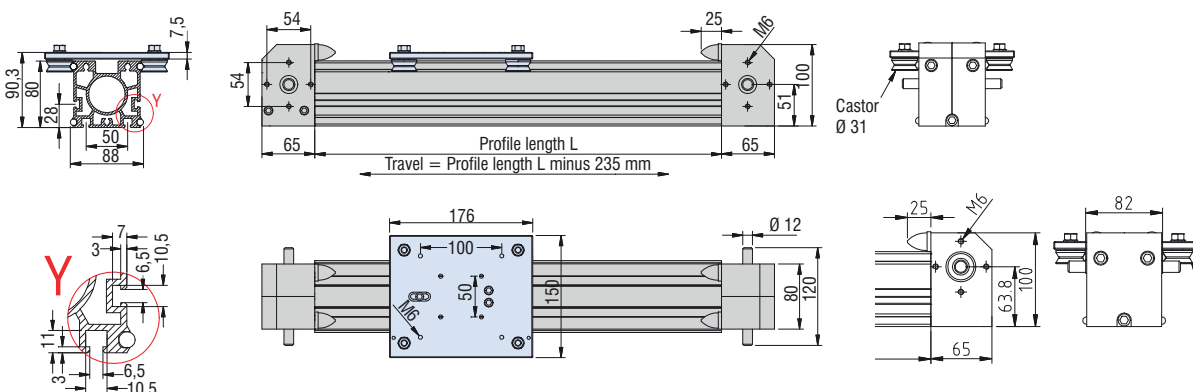
LEZ 3

Dimensioned drawings

with shaft slides

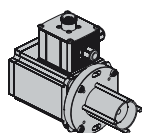


with trolley

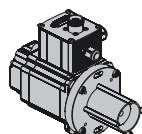


Motor modules

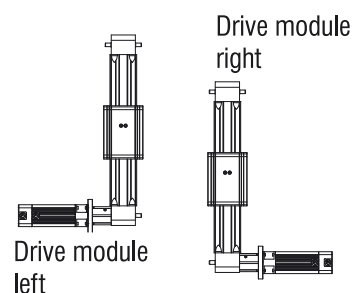
(Motor pin assignments are on Page B-74)

Drive module with stepper motor
(direct drive)


Part number	Motor module	
396 085 0060	MS 600 HT	right
396 085 0061	MS 600 HT	left
396 088 0060	MS 900 HT	right
396 088 0061	MS 900 HT	left

Drive module with EC servomotor
EC 60 and EC 86 (direct drive)


Part number	Motor module
396 423 006012	EC 60L
396 444 0070	EC 86S
396 466 0070	EC 86L



Accessories

LEZ 1



Angle bracket

- for LEZ 1

Part-no.: **209110 0010**



20/30 coupling

- for LEZ 1
- 1 VE = 1 coupling

Part-no.: **218001 5081**

Shaft slides 1/70

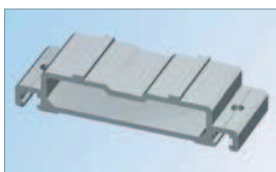
- L 96 x W 72 x H 28.5 mm
- Clamping surface plane milled, T-slide thread M6
- central greasing option, adjustable for no play
- Weight: 0.35 kg
- Option: stainless steel version

Part-no.: **223100 0070**
stainless steel: **223101 0070**

Transmission shaft

Length 1 m
Part-no.: **227008 1000**

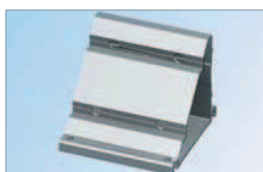
LEZ 1G Blue Line



Feet

- for LEZ 1G
- 116.5 x 40 x 22.5 mm
- 1 VE = 2 pieces

Part-no.: **232199 0001**



Mounting bracket

- including fixing material
- for LEZ 1G

Part-no.: **232199 0002**



30/40 coupling

- for LEZ 1G Blue Line
- 1 VE = 1 coupling

Part-no.: **218002 8081**

Transmission shaft

Length 1 m
Part-no.: **227008 1000**

LEZ 2



Motor mounting plate

- for LEZ 2
- including fixing material
- for direct drive

Part-no.: **232199 0004**



Coupling for transmission shaft

- for LEZ 2
- 1 VE = 2 pieces couplings

Part-no.: **218050 0002**

Transmission shaft ø 25 mm

Length 1 m
Part-no.: **219001 0125**

Length 2 m
Part-no.: **219001 0225**

Vertical bearing

for transmission shaft

VE 1 piece
Part-no.: **896202 5562**

LEZ 3



Coupling for transmission shaft

- for LEZ 3
- 1 VE = 2 pieces couplings

Part-no.: **218050 0002**

Transmissions shaft ø 25 mm

Length 1 m
Part-no.: **219001 0125**

Length 2 m
Part-no.: **219001 0225**

Vertical bearing for transmission shaft

VE 1 piece
Part-no.: **896202 5562**

LEZ 9



30/40 couplings

- for LEZ 9
- 1 VE = 1 coupling

Part-no.: **218002 8081**

Shaft slide WS 11/70

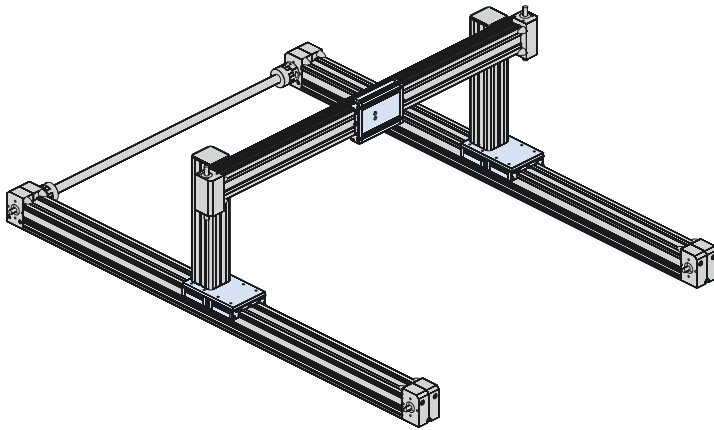
- L 96 x W 96 x H 32 mm
- Clamping surface plane milled, T-slide thread M6
- central greasing option, adjustable for no play
- Weight: 0.4 kg
- Option: stainless steel version

Part-no.: **223111 0070**
stainless steel: **223111 1070**

Transmissions shaft

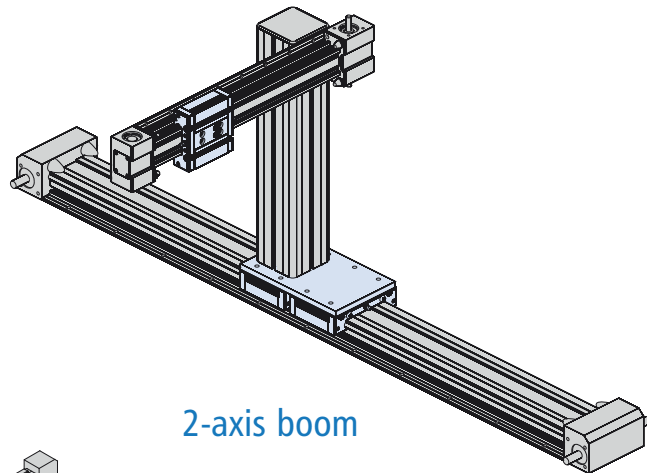
Length 1 m
Part-no.: **227008 1000**

Examples in use



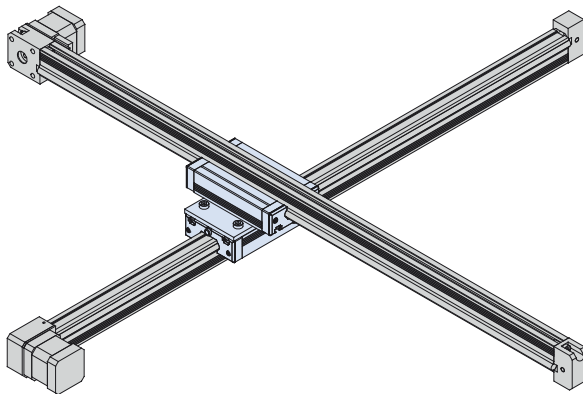
2-axis H-design

- 2 x LEZ 3
- 1 x LEZ 2
- Transmission shaft



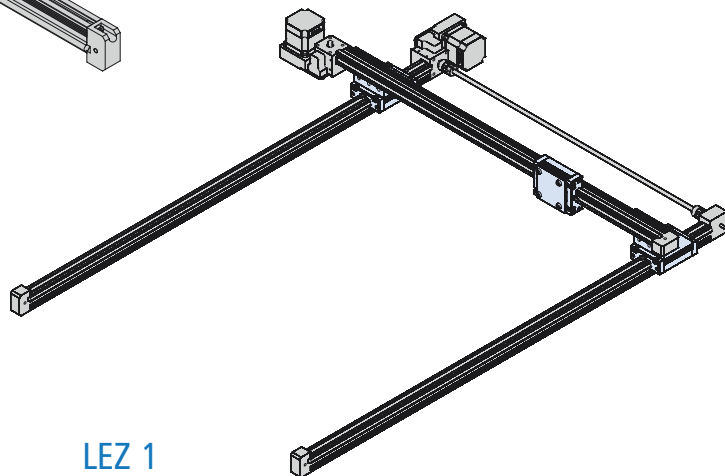
2-axis boom

- 1x LEZ 2
- 1x LEZ 9



Crossbench LEZ 1

- 2 x LEZ 1



LEZ 1

- 2-axis flatbed configuration

Clutch housing

Drive element accessories

Connection options

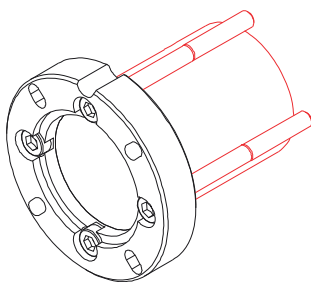
Direct drive preparation

Connecting options <i>Direct drive</i>	LES 4	LES 6	LES 5	Angular gear fixing 0°	Angular gear fixing 90°
MS 200 HT-2 DC 100 EC 60	Connection via coupling casing 1 <i>short sleeve</i> with adequate shaft coupling				Coupling casing 1 <i>long sleeve</i>
MS 600 HT MS 900 HT EC 86	Connection via coupling casing 2 <i>short sleeve</i> with adequate shaft coupling				Coupling casing 2 <i>long sleeve</i>
Angular gear fixing 0°	split coupling casing <i>short sleeve</i> with adequate shaft coupling			Connection via transmission shaft set	
Angular gear fixing 90°	split coupling casing <i>short sleeve</i> with adequate shaft coupling				

Ordering overview

Clutch housing

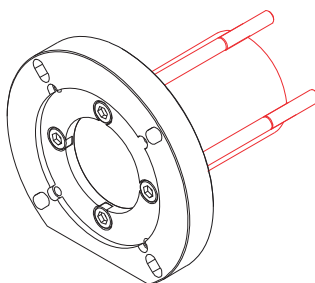
Clutch housing 1



short sleeve
Part no.: 218 100 0001

long sleeve
Part no.: 218 100 0002

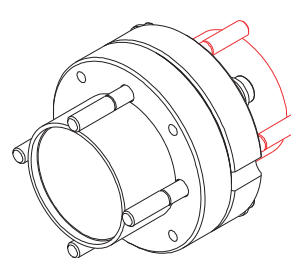
Clutch housing 2



short sleeve
Part no.: 218 100 1001

long sleeve
Part no.: 218 100 1002

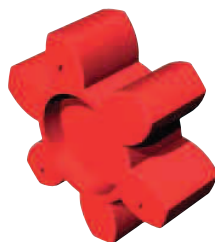
Split clutch housing



short sleeve
Part no.: 218 100 2001

long sleeve
Part no.: 218 100 2002

Clutches



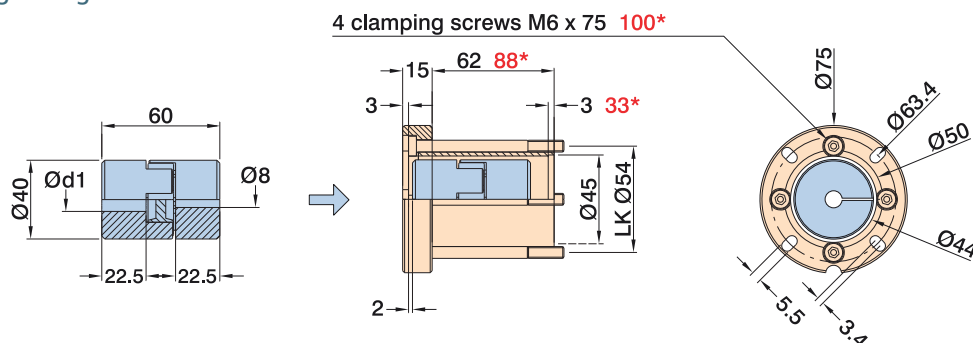
coupling	Item no.:	d_1	d_2
20/30	218 001 5060	5,0	6,0
	218 001 9999	from 4 to 7 mm	
30/40	218 002 6380	6,35	8,0
	218 002 8080	8,0	8,0
	218 002 9999	from 6 to 13 mm	
40/60	218 003 9580	9,52	8,0
	218 003 9999	from 8 to 18 mm	

Clutch housing

Drive element accessories

Dimensioned drawing

Coupling casing 1



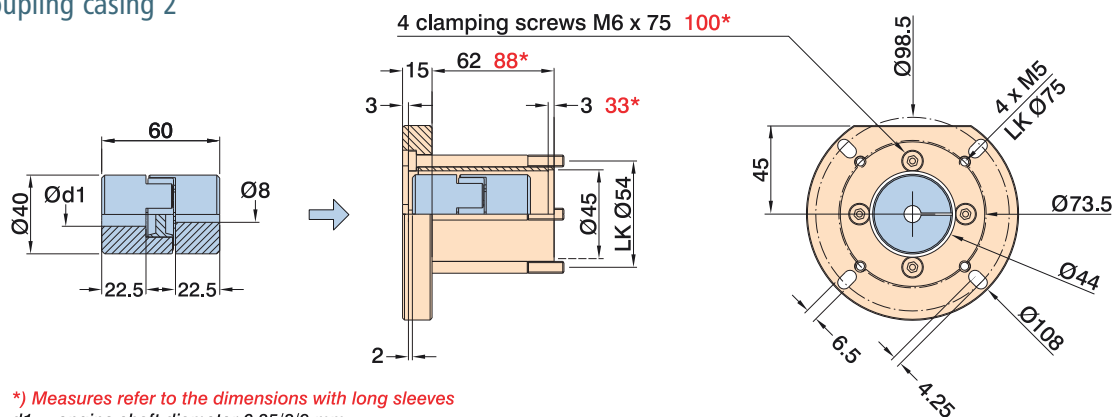
*) Measures refer to the dimensions with long sleeves

d1 = engine shaft diameter 6.35/8/9 mm

Suitable shaft coupling WK 40/60 on page 2-68 (not included in scope of delivery)

Dimensioned drawing

Coupling casing 2



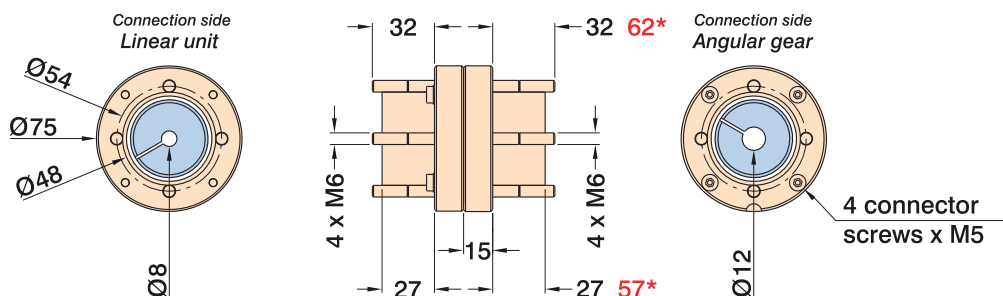
*) Measures refer to the dimensions with long sleeves

d1 = engine shaft diameter 6.35/8/9 mm

Suitable shaft coupling WK 40/60 on page 2-68 (not included in scope of delivery)

Dimensioned drawing

Split coupling casing



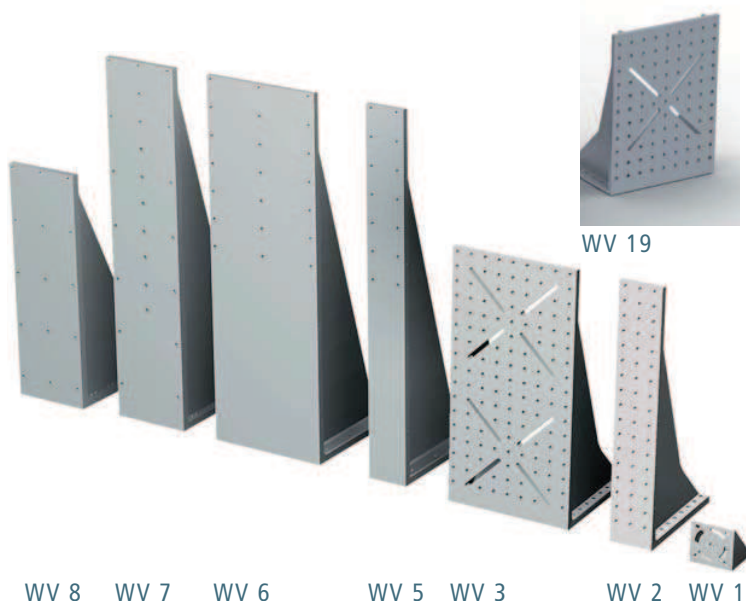
*) Measures refer to the dimensions with long sleeves

Suitable shaft coupling WK 40/60 on page 2-68 (not included in scope of delivery)

Angle brackets

Connectors

Angle bracket with clamping surfaces milled flat



Angle bracket WV 1

- blank
- Aluminium casting (0.2 kg)
- L71 x W75 x H71

Part no.: **209110 0010**

Angle bracket WV 2

- blank
- Aluminium casting (2.6 kg)
- L221 x W75 x H446

Part no.: **209110 0022**

Angle bracket WV 3

- blank
- Aluminium casting (5.8 kg)
- L221 x W221 x H446

Part no.: **209110 0032**

Angle bracket WV 5

- blank
- Aluminium welded (5.26 kg)
- L220 x W75 x H670

Part no.: **209 110 0050**

Angle bracket WV 6

- blank
- Aluminium welded (13.3 kg)
- L220 x W220 x H670

Part no.: **209110 0060**

Angle bracket WV 7

- blank
- Aluminium welded (10.8 kg)
- L220 x W145 x H670

Part no.: **209110 0070**

Angle bracket WV 8

- blank
- Aluminium welded (7.4 kg)
- L222 x W145 x H446

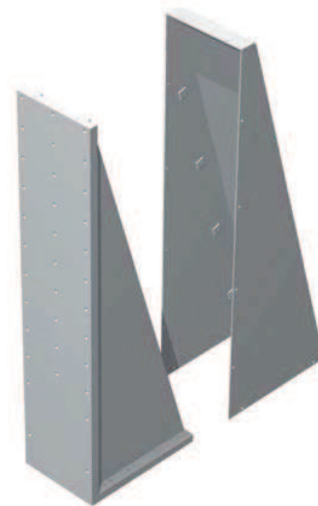
Part no.: **209110 0080**

Angle bracket WV 19

- blank
- Aluminium welded (2.5 kg)
- L150 x W221 x H300

Part no.: **209110 0190**

matching cover plates



Cover plate for WV 2

- naturally anodised
- Aluminium sheet (0.8 kg)

Part no.: **209110 0021**

Cover plate for WV 3

- naturally anodised
- Aluminium sheet (1.15 kg)

Part no.: **209110 0031**

Cover plate for WV 5

- naturally anodised
- Aluminium sheet (1.20 kg)

Part no.: **209 110 0051**

Cover plate for WV 6

- naturally anodised
- Aluminium sheet (1.8 kg)

Part no.: **209110 0061**

Cover plate for WV 7

- naturally anodised
- Aluminium sheet (1.5 kg)

Part no.: **209110 0071**

Cover plate for WV 8

- naturally anodised
- Aluminium sheet (1 kg)

Part no.: **209110 0081**

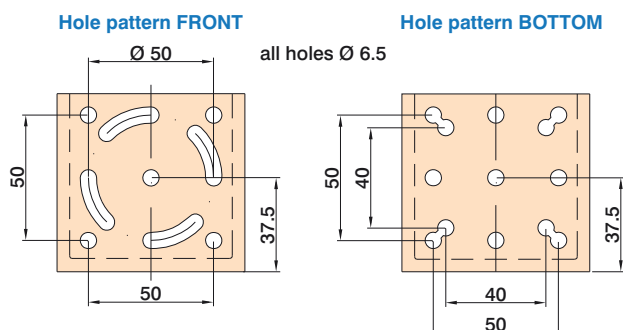
Angle brackets

Connectors

Hole diagram

Angle bracket WV 1

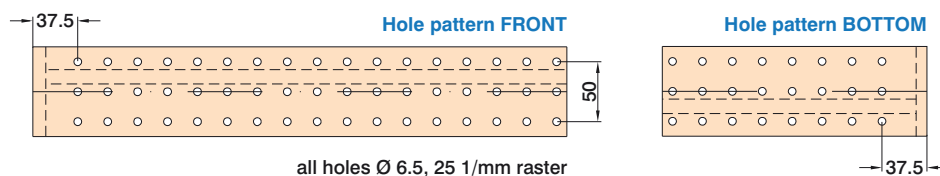
L 71 x W 75 x H 71 mm



Hole diagram

Angle bracket WV 2

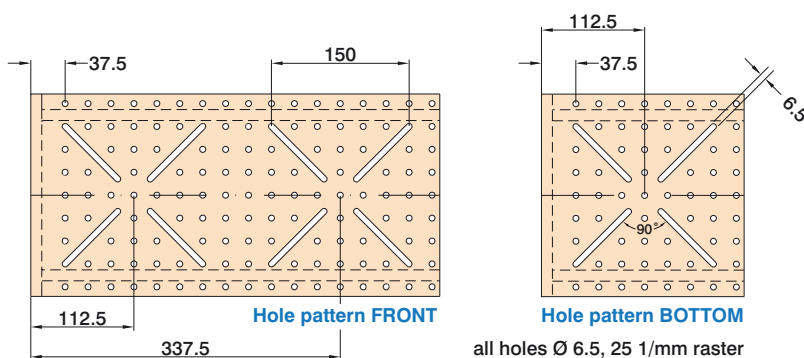
L 221 x W 75 x H 446 mm



Hole diagram

Angle bracket WV 3

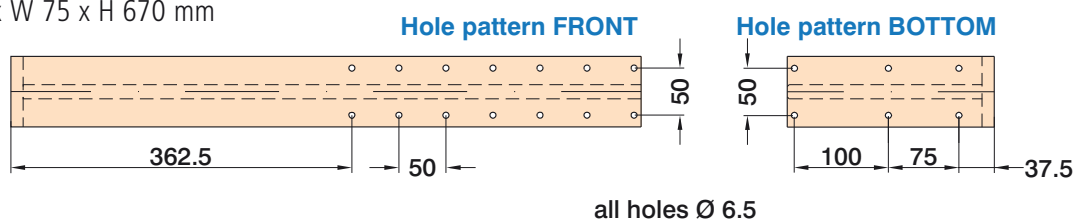
L 221 x W 221 x H 446 mm



Hole diagram

Angle bracket WV 5

L 220 x W 75 x H 670 mm



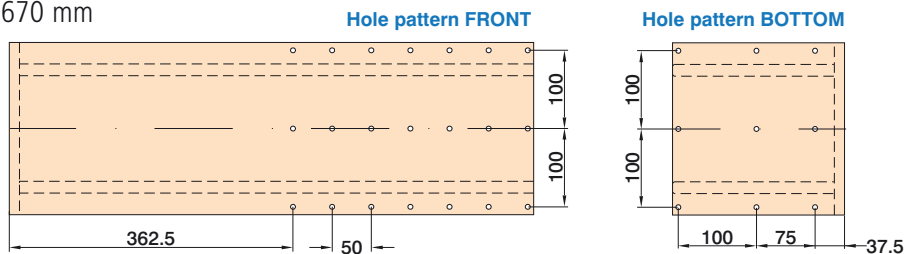
Angle brackets

Connectors

Hole diagram

Angle bracket WV 6

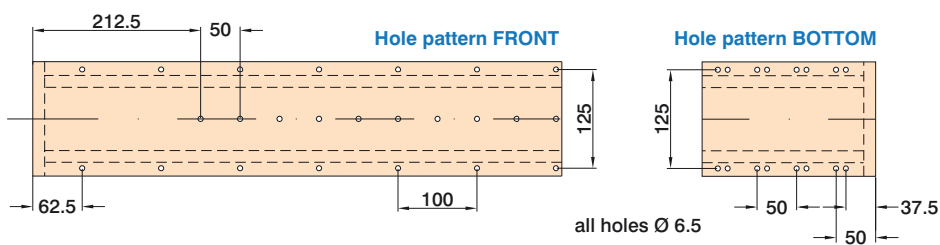
L 220 x W 220 x H 670 mm



Hole diagram

Angle bracket WV 7

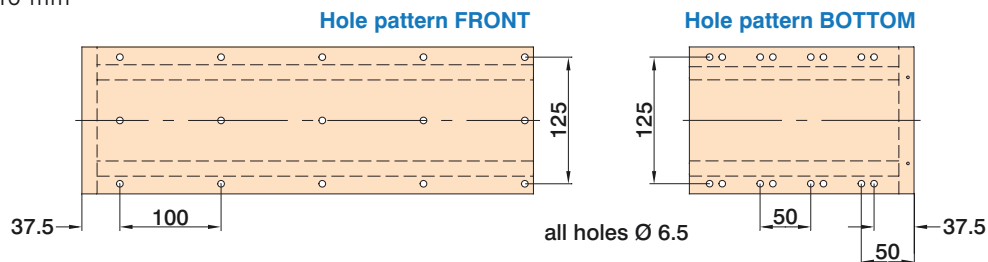
L 220 x W 145 x H 670 mm



Hole diagram

Angle bracket WV 8

L 222 x W 145 x H 446 mm



Hole diagram

Angle bracket WV 19

L 150 x W 221 x H 300 mm

