Automation Lightweight Power Clamps

82L-3E

January 2022

Christian Schubert

Automation Power Clamps - Modular Designs

Modular designs with opening angle field adjustment

52H-3E
Modular Manual Clamp

82M-3E
Modular Power Clamp

- ❑ Common Bodys
- ❑ Common Sensors
- ❑ Common Cylinders
- ❑ Common U – Arms
- ❑ Common Lateral Arms
- ❑ Common H - Arms

TCC-2E
Modular Tolerance Compensation Power Clamp

82L-3E (New)
Modular Lightweight Power Clamp

82L - New Generation

- No Common housing for handle and non handle version
- NPT-Port only for size 32 & 40 available
- Opening angle adjustment by washers in the cylinder (Clamp needs to be re-assembled)
- Adjustment of the sensors necessary (Risk of solder joints break)
- Bronce bushings for the drive shaft (Tolerance issues)

82L*G - old

82L-3E - new

- Common modular design improves spare parts ordering and reduces inventory
- Field adjustable arm opening angle with one tool
- Improved durability from 1 Mio. to 3 Mio. cycles
- Common housing for handle and non handle version
- Common cylinder as G-Port & NPT-Port version for handle and non handle version
- One-piece inductive Sensors as enclosed design – no adjustment needed
- Sealed Needle Bearings for a better arm guidence
- Same Clamping Arms & Accessoires as 82L*G Version

82L-3E - Overview

The new 82L-3E series will be available in the sizes

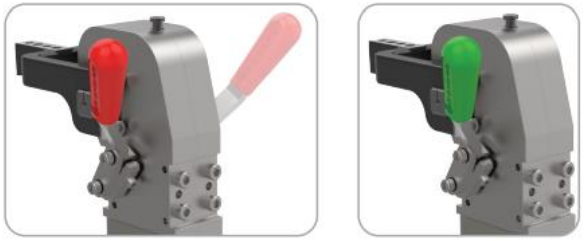
25

32

40

with and without hand lever

Can be ordered with optional hand levers



Optional Hand Lever can be mounted on Left or Right side

Standard handles available in red and green

Use same clamp arms as the 82L-2 Series

U-Type Central Clamping Arms

H-Type Clamping Arms

Lateral Clamping Arms

82L-3E is available in three sizes

82L-3E

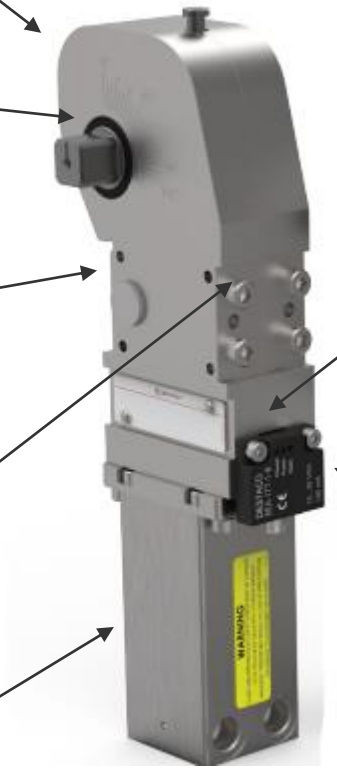
Enclosed body

Manual opening
in case of pressure failure,
with additional pin

Sealed needle bearings
for a better arm guidence

Mounting Automatic
& Manual version
Front, Rear & lateral

Opening angle
Field adjustable with one tool

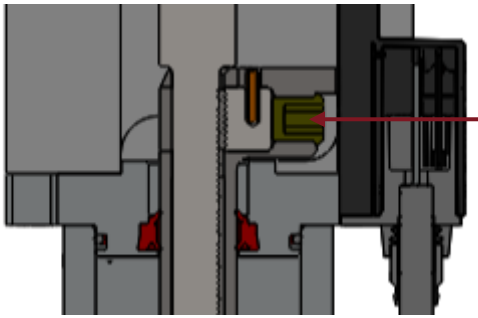


Mounting Automatic
& Manual version
front & rear mounting shoulder
for anti-twist device

Inductive sensors
with LED display

Cylinder
G-Port & NPT Port standard

82L-3E…Improvements



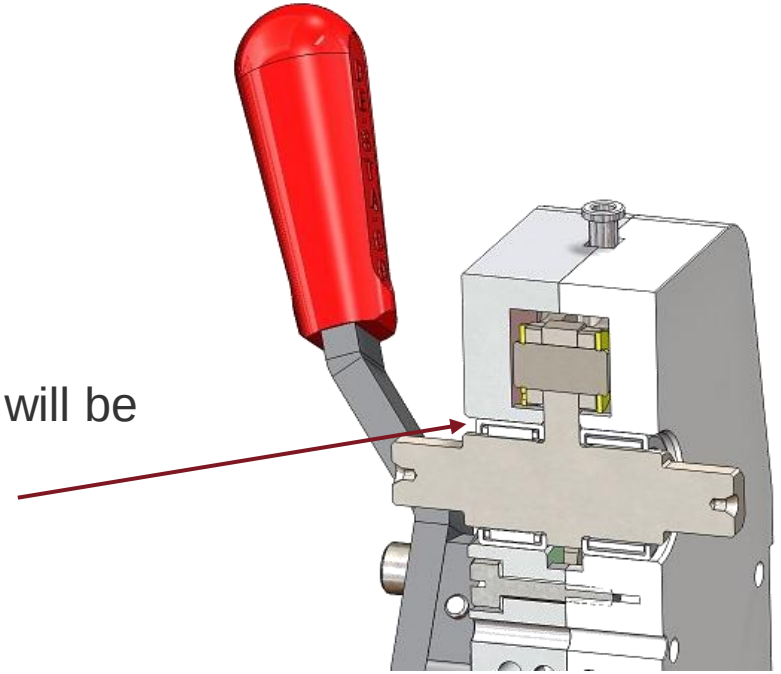
Open angle adjustment

Open angle adjustment implemented.
Same as on the excisting 82M-3E design

Needle bearings

The bronze bushings for the drive shaft will be Replaced by needle bearings

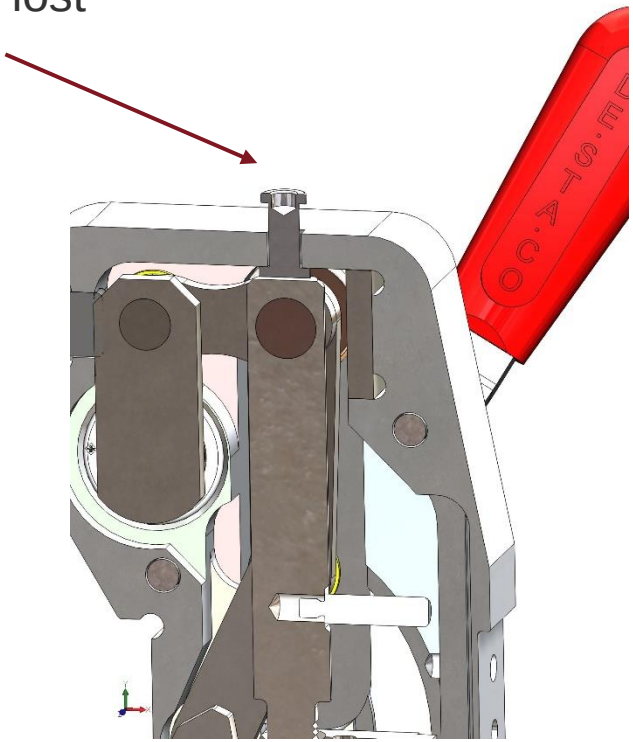
Better clamp arm guidence



82L-3E…Improvements

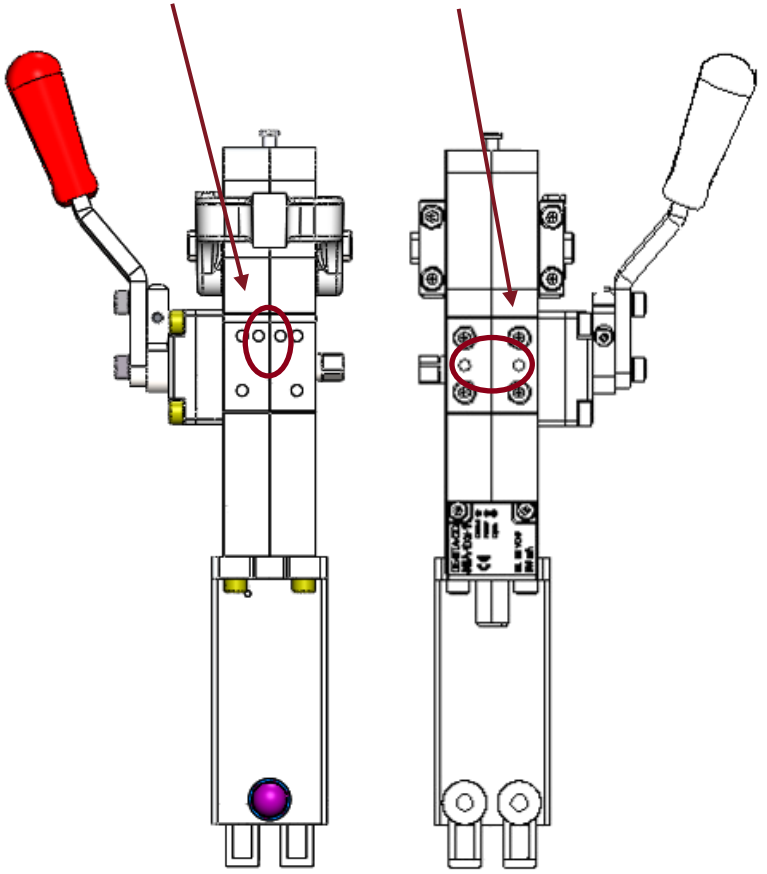
Opening pin

All size will receive an opening pin to unlock the clamp if air is lost



Common Mounting Dowel holes for Handlever & Automatic version

All sizes will have dowel holes in the front and rear shoulder

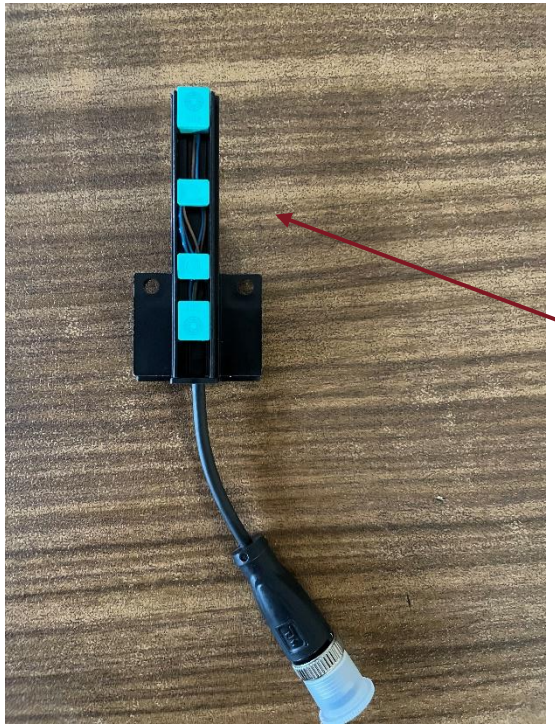


82L-3E…Improvements

Sensing system

No additional adjustment of the sensors needed.

Old



Adjustable Sensor

Complete enclosed
one piece sensor.

New

82L-3E…Hand Lever versions

Hand lever

We added to our classic red handle design
A green handle line as standard.

Hand lever

Red Option

Green Option

82L-3E…Clamping arms

Clamping arms

- All excisting clamps arms can be used
- Clamping arms are separately for standard deliverys

U-Arm

Lateral Arm right or left

2 x Lateral Arm

H-Arm

82L-3E…Ordering Code

DESTACO a DOVER company

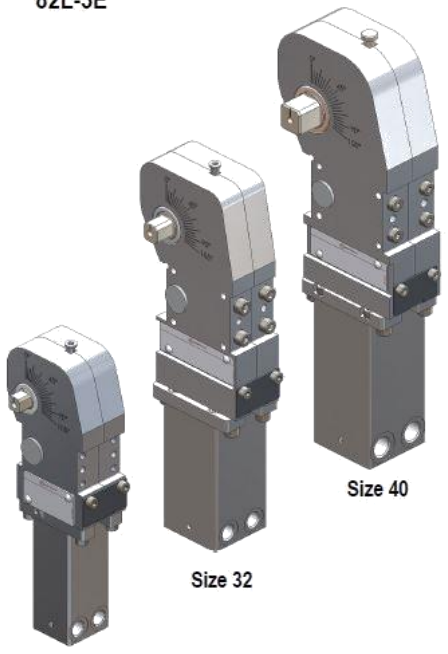
Model no. code 82L-3E

Modular power clamp

NC82L-3E_GB
Rev. A
Sheet 1/1

Example: 82L-3E 23 00 40 C8

82L-3E



Basic model

Dimensions see data sheet

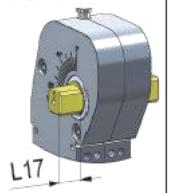
Size 25

23 = drive shaft for U-clamp arm L17 = 8,5 mm

Size 32

23 = drive shaft for U-clamp arm and lateral clamp arms L17 = 12,5 mm

Size 40



23 = drive shaft for U-clamp arm and lateral clamp arms L17 = 16 mm

Drive shaft

Dimensions see data sheet

00 = without hand lever

H0 = hand lever, red

HG = hand lever, green

Hand lever

Dimensions see data sheet

25 = cylinder Ø25 *(connection = G1/8)*

2N = cylinder Ø25 *(connection = 1/8-18 NPT)*

32 = cylinder Ø32 *(connection = G1/8)*

3N = cylinder Ø32 *(connection = 1/8-18 NPT)*

40 = cylinder Ø40 *(connection = G1/4)*

4N = cylinder Ø40 *(connection = 1/4-18 NPT)*

Cylinder

Dimensions see data sheet

00 = without sensing system

C8 = inductive sensing system (M8x1)

B7 = inductive sensing system (M12x1)

B8 = inductive sensing system (M12x1)

Sensing system

Dimensions see data sheet

9/2/2020

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Replaces:
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82L-3E… Ordering Code - Conversion

Model Number Generator old-new
- Modell-Nummer Generator GB

Model Number Comparison
82L2.G-2 / 82L-3E…

Type	Drive shaft / Arm	Sensor type	Handle version	Opening angle	Basic model
82L2N-2	12	B7	H	5	

New entry

New model Number
82L-3E 23 H0 2N B7

DESTACO a DOVER company

Conversion codes: 82L3*-2 / 82L-3E23**3***

82Lxx-2_82L-3E_GB
Sheet 2/3

Example:	82L3G-2	03	00	0	0	B
	82L3G-2 82L3N-2	03 43	00 C8 B7 B8	0 H G	Opening angle	without clamping arm
	82L3G-2 82L3N-2	11 12 51 52	00 C8 B7 B8	0 H G	Opening angle	without clamping arm
	82L3G-2 82L3N-2	23 63	00 C8 B7 B8	0 H G	Opening angle	without clamping arm
	82L3G-2 82L3N-2	38 78	00 C8 B7 B8	0 H G	Opening angle	without clamping arm

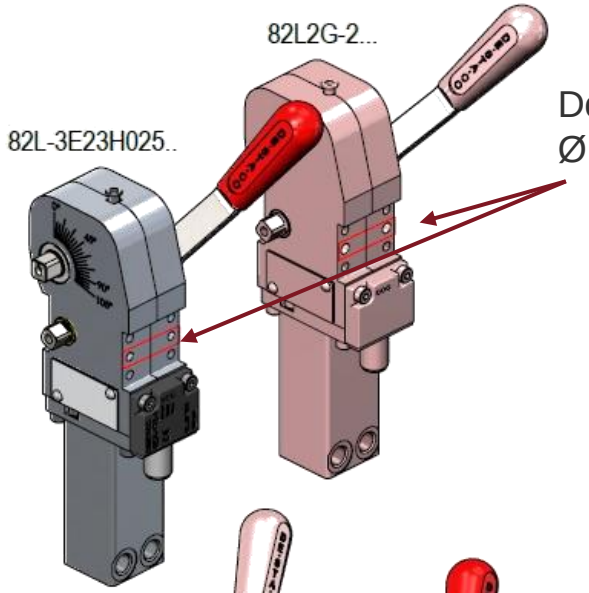
Example:	82L-3E	23	00	32	00	Clamping arm: order separately	
	82L-3E	23	00 C8 B7 B8	32 3N	00 H0 HG	+	8JG-065-2-01
	82L-3E	23	00 C8 B7 B8	32 3N	00 H0 HG	+	8JG-066-1-01
	82L-3E	23	00 C8 B7 B8	32 3N	00 H0 HG	+	2x 8JG-066-1-01
	82L-3E	23	00 C8 B7 B8	32 3N	00 H0 HG	+	8JG-363-1-01

Clamping Arm 8JG-068-1-01

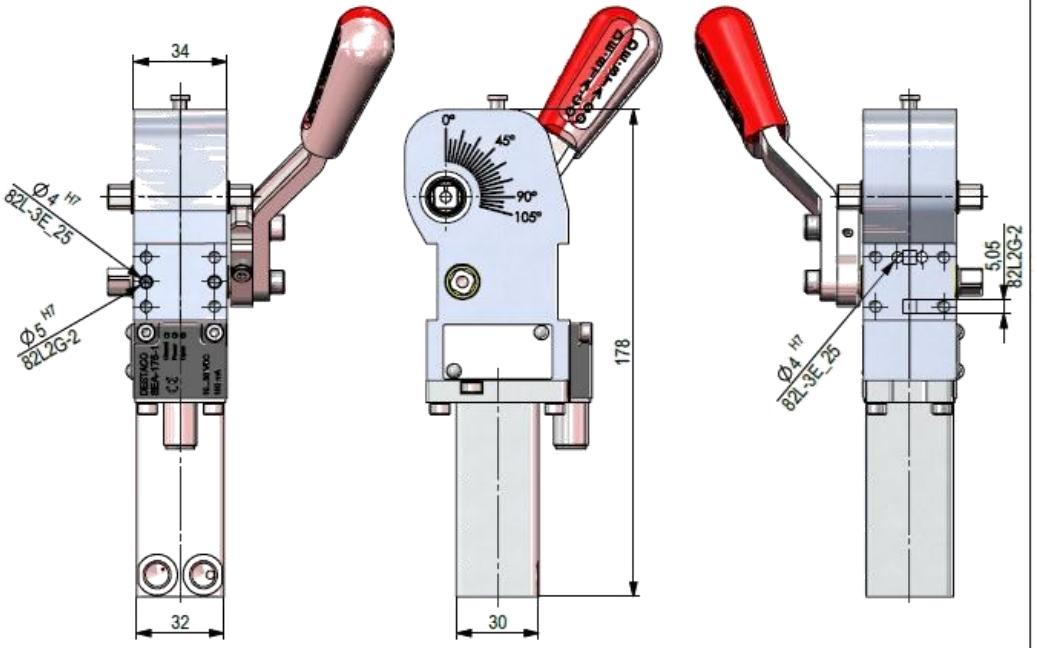
Clamping Arm 8JG-066-1-01

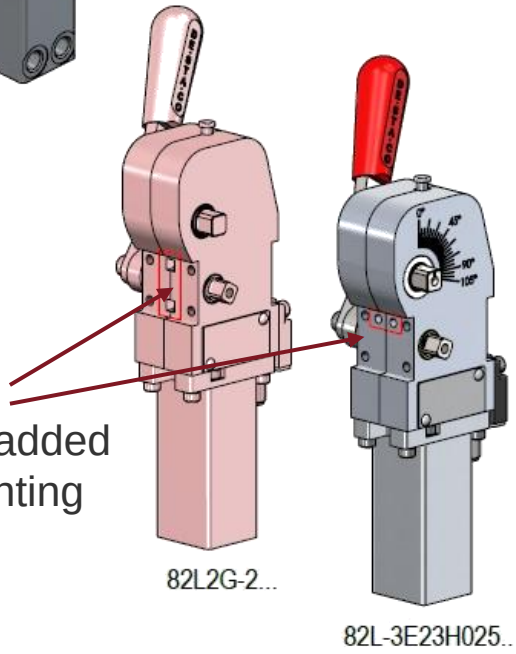
Ordering Code – Conversion Overview
82Lxx-2_82L-3E_GB, rev A

82L-3E vs 82L2G Comparison Size 25 - Manual Version



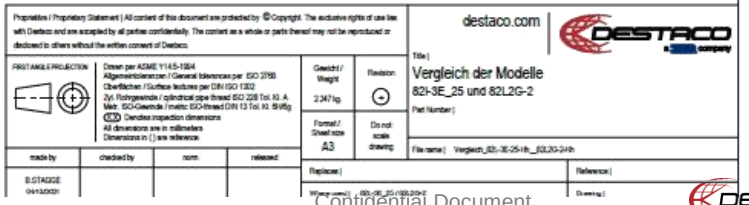
Dowel holes Ø changed from
Ø 5 H7 to Ø 4 H7 rear mounting





Dowel holes added
for front mounting

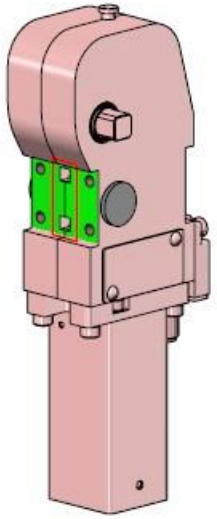
- ❑ One housing for automatic and hand lever version
- ❑ Same dimensions



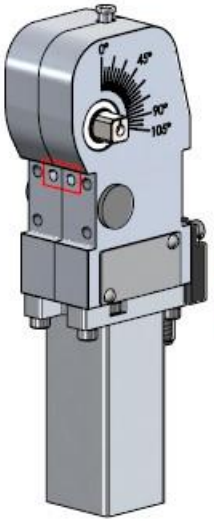
82L-3E vs 82L2G Replacement solution Size 25

Adapter Plate for replacement

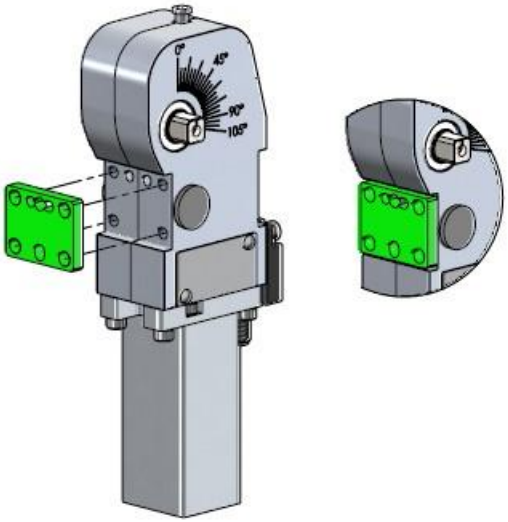
- Dowel holes for front mounting



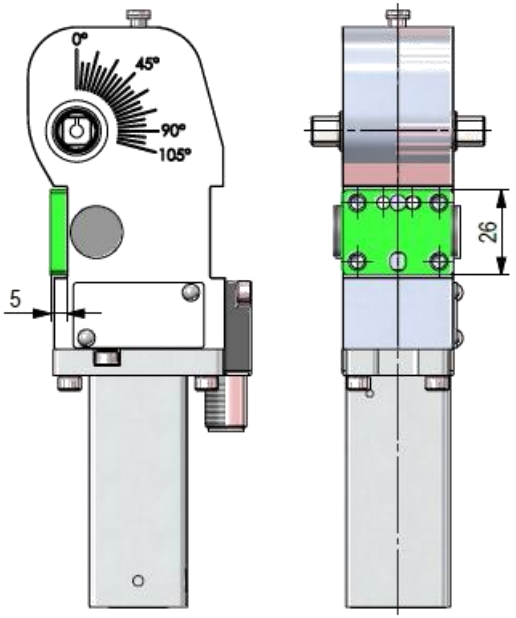
82L2G-2...



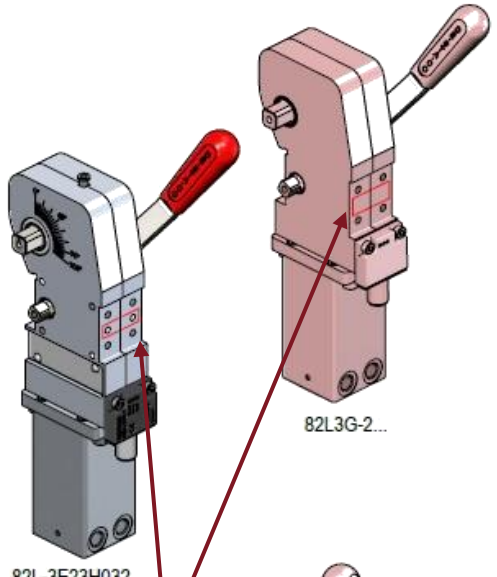
82L-3E230025..



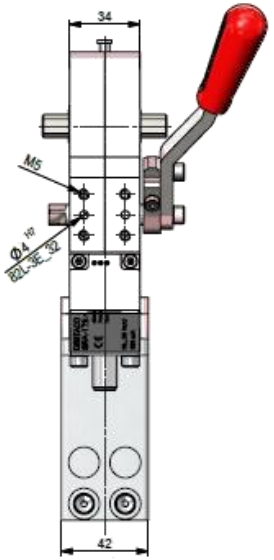
Adapter für
82L-3E230025..

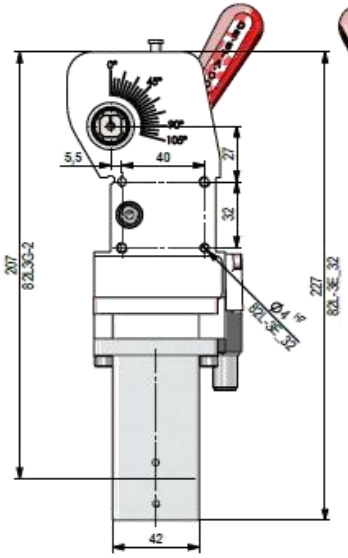


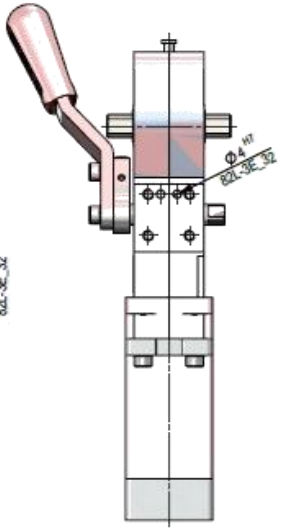
82L-3E vs 82L2G Comparison Size 32 - Manual Version

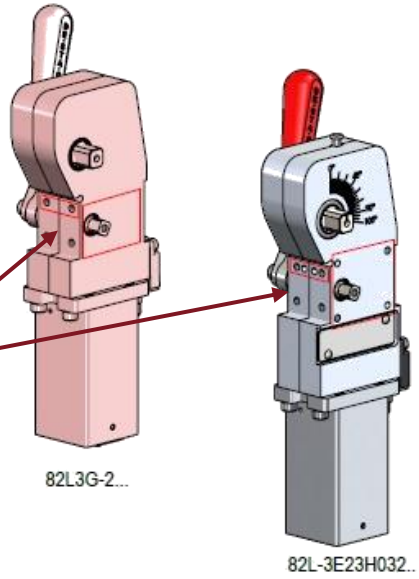


Dowel holes added for rear mounting





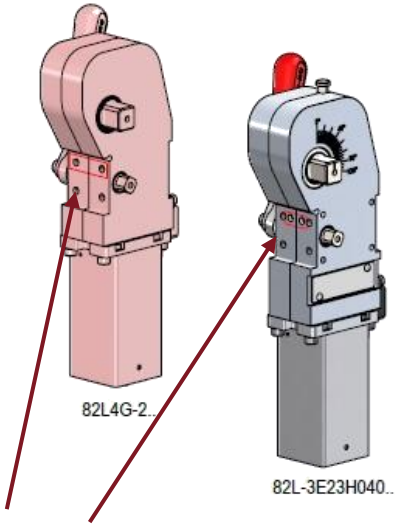




Dowel holes added for front mounting

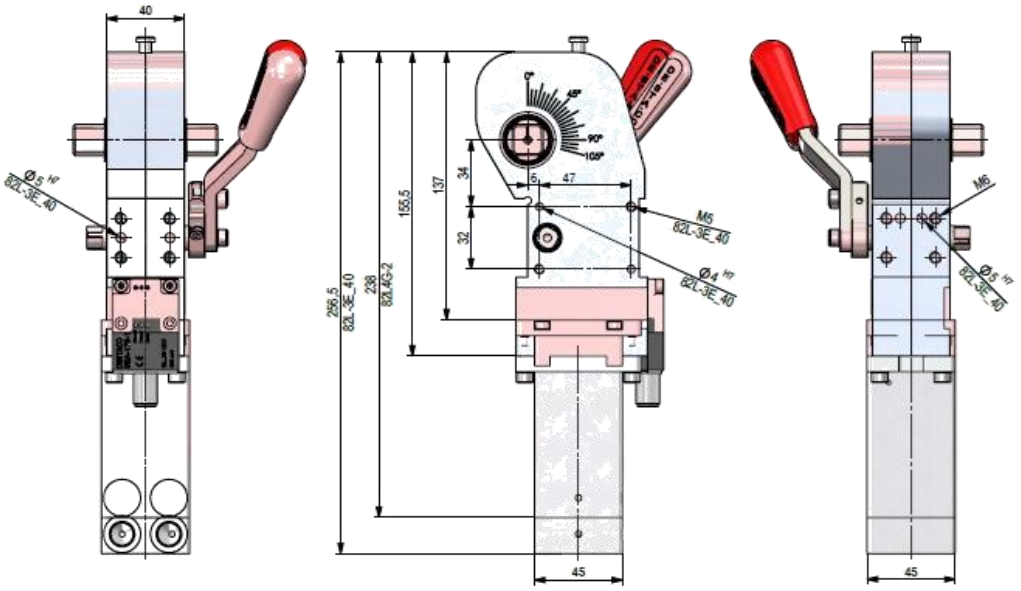
- One housing for automatic and hand lever version
- Dimensions: 20mm longer based on open angle adjustment feature

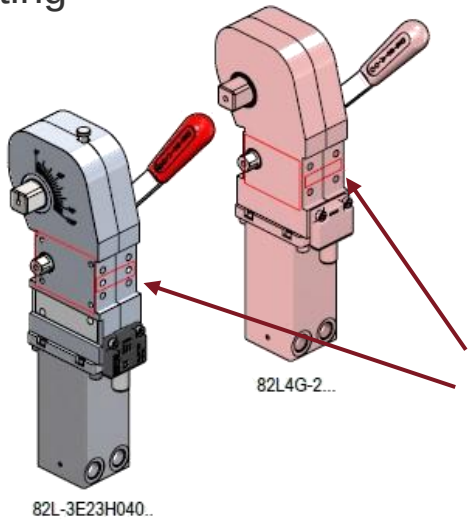
82L-3E vs 82L2G Comparison Size 40 - Manual Version



Dowel holes added for front mounting

- One housing for automatic and hand lever version
- Dimensions: 18,5 mm longer based on open angle adjustment feature

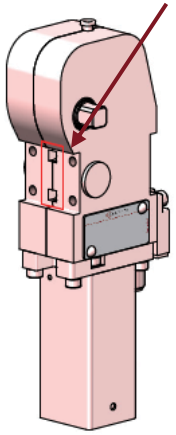




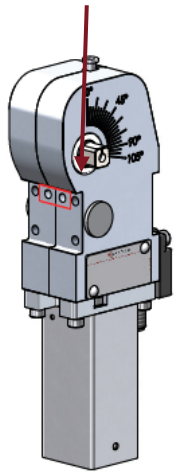
Dowel holes added for rear mounting

82L-3E vs 82L2G Comparison Size 25 - Automatic Version

Dowel holes added for front mounting



82L2G-2...



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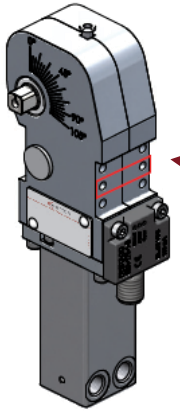

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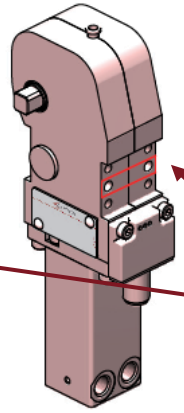
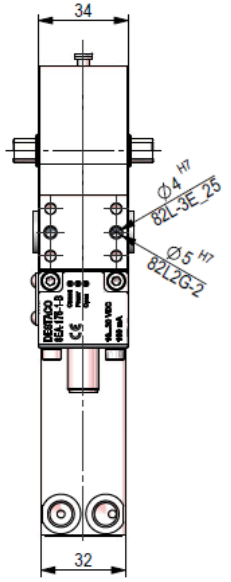
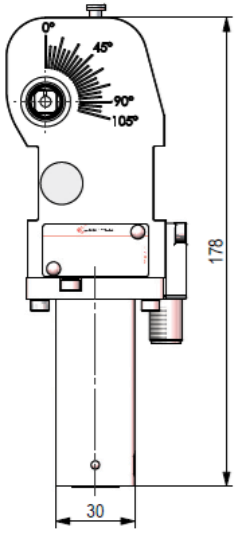
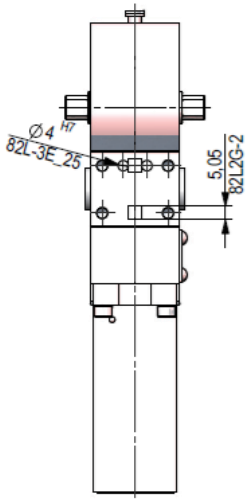


82L2G-2...

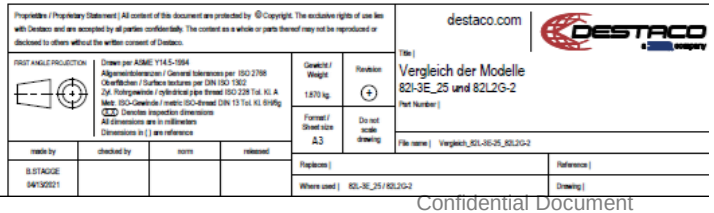
- ❑ One housing for automatic and hand lever version
- ❑ Same dimensions
- ❑ Side mounting: Option for the Automatic version available as special







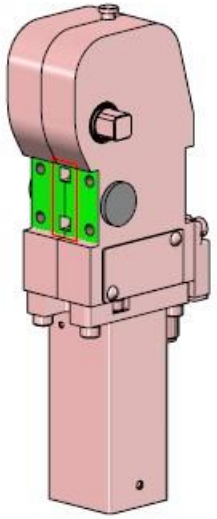
Dowel holes Ø changed from
Ø 5 H7 to Ø 4 H7 rear mounting



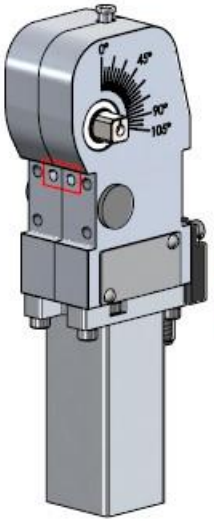
82L-3E vs 82L2G Replacement solution Size 25

Adapter Plate for replacement

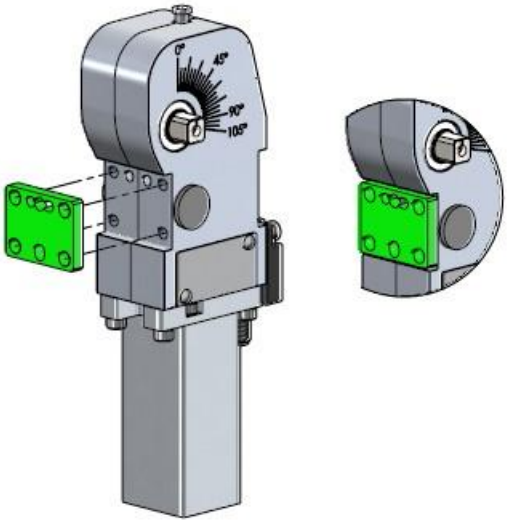
- Dowel holes for front mounting



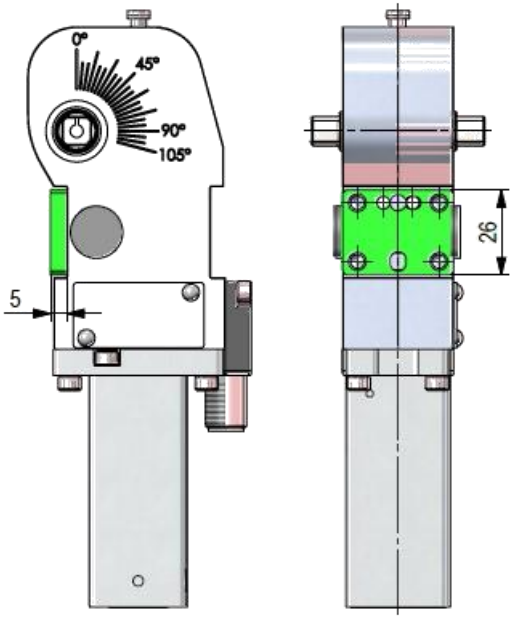
82L2G-2...



82L-3E230025..

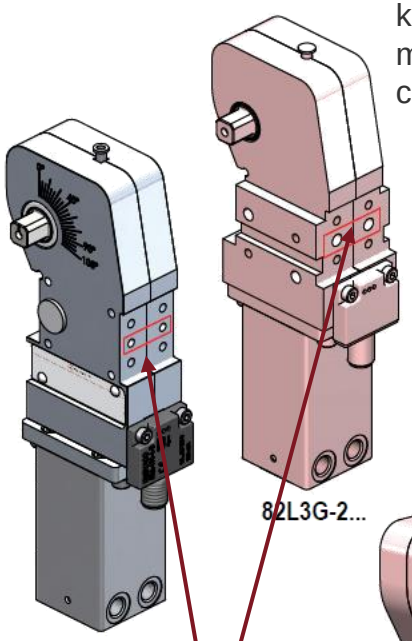


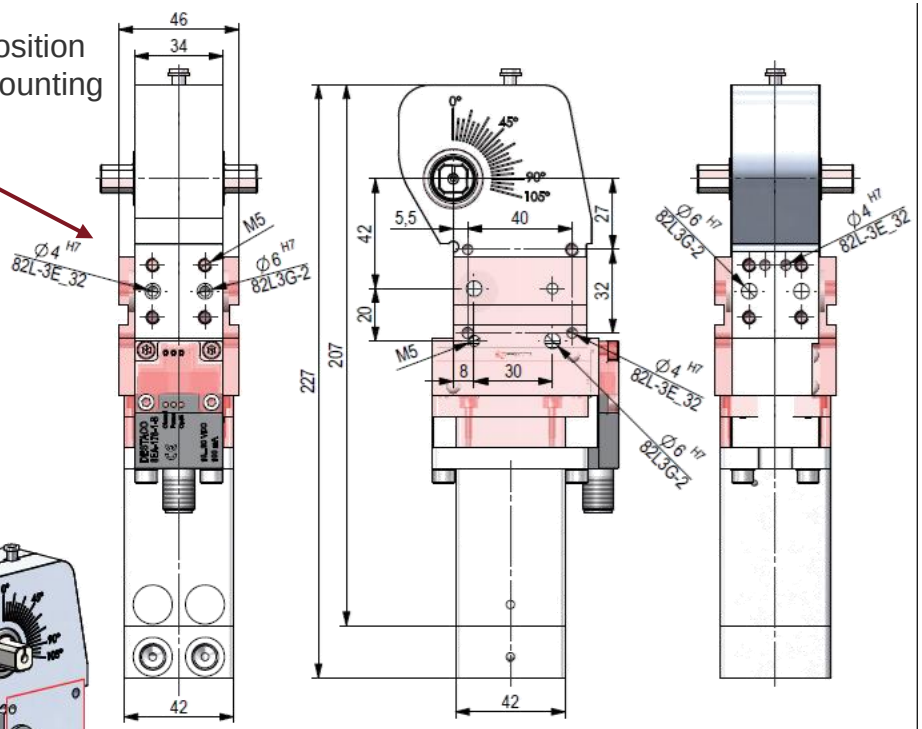
Adapter für
82L-3E230025..



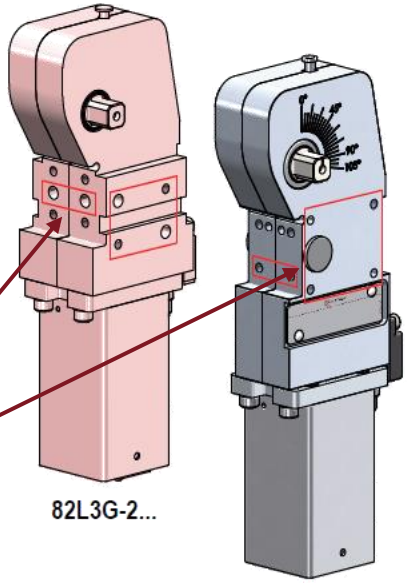
82L-3 vs 82L3G Comparison - Automatic Version

keyway removed,
mounting pattern position
changed for side mounting



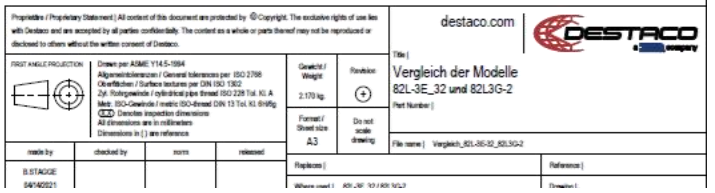


Dowel holes changed from
Ø 6 H7 to Ø 4 H7 for rear
mounting



Dowel holes changed for
front mounting

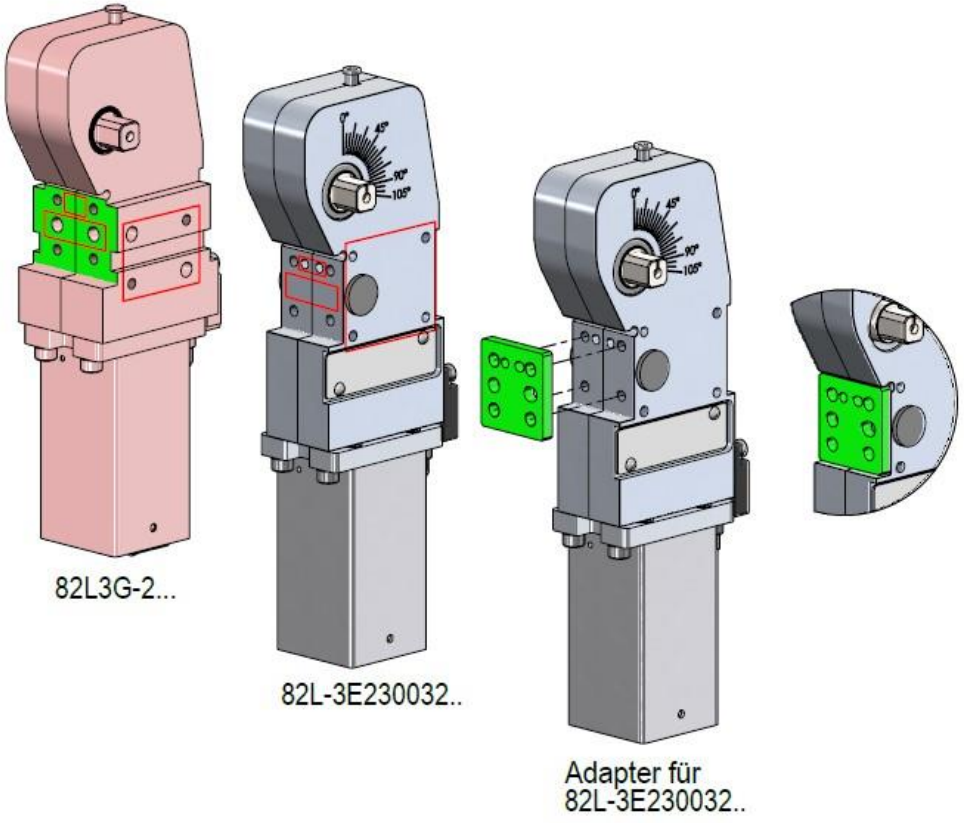
- One housing for automatic and hand lever version
- Dimensions:
  - 20mm longer based on open angle adjustment feature
  - 12 mm slimmer

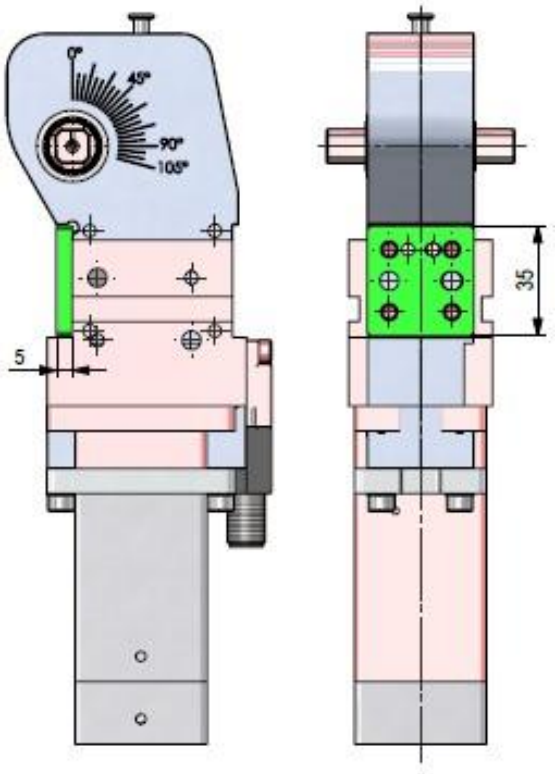


82L-3E vs 82L2G Replacement solution Size 32

Adapter Plate for replacement

- Dowel holes for front mounting

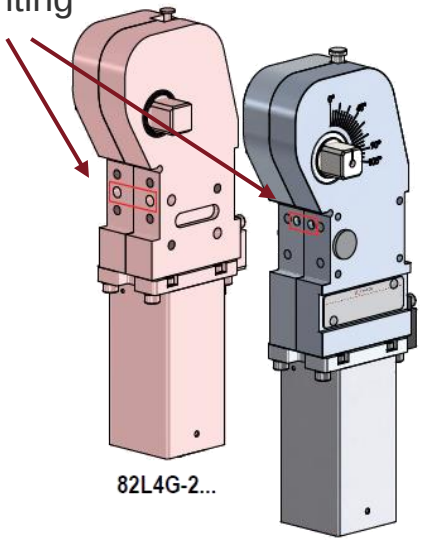




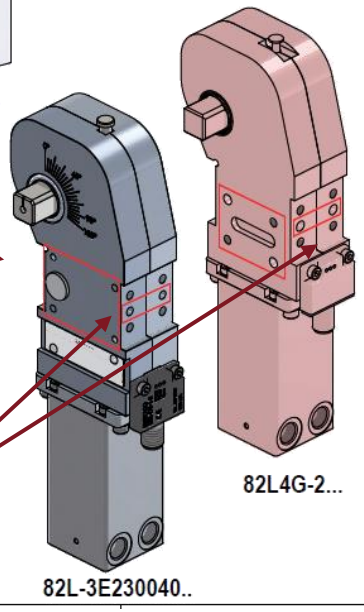
82L-3E vs 82L4G Comparison Size - 40 Automatic Version

- One housing for automatic and hand lever version
- Dimensions:
  - 18,5 mm longer based on open angle adjustment feature

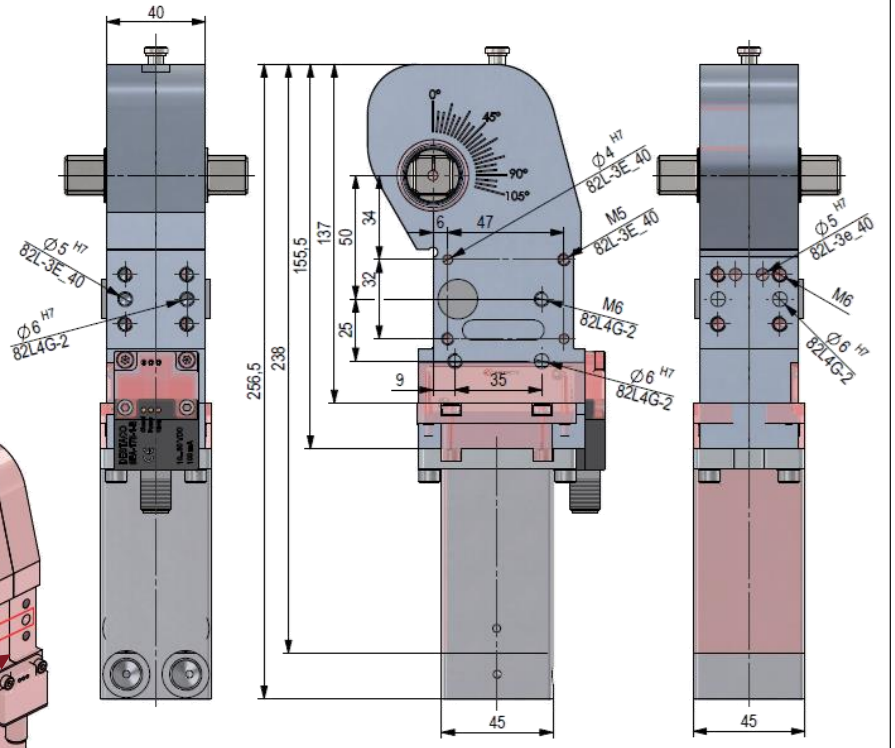
Dowel holes changed for front mounting

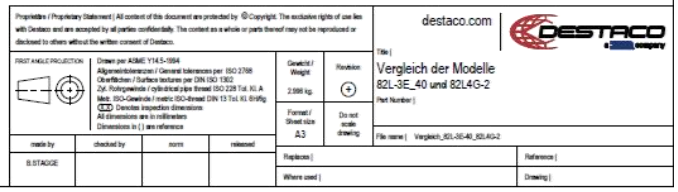


Keyway removed, mounting pattern position changed for side mounting



Dowel holes changed from Ø 6 H7 to Ø 5 H7 for rear mounting

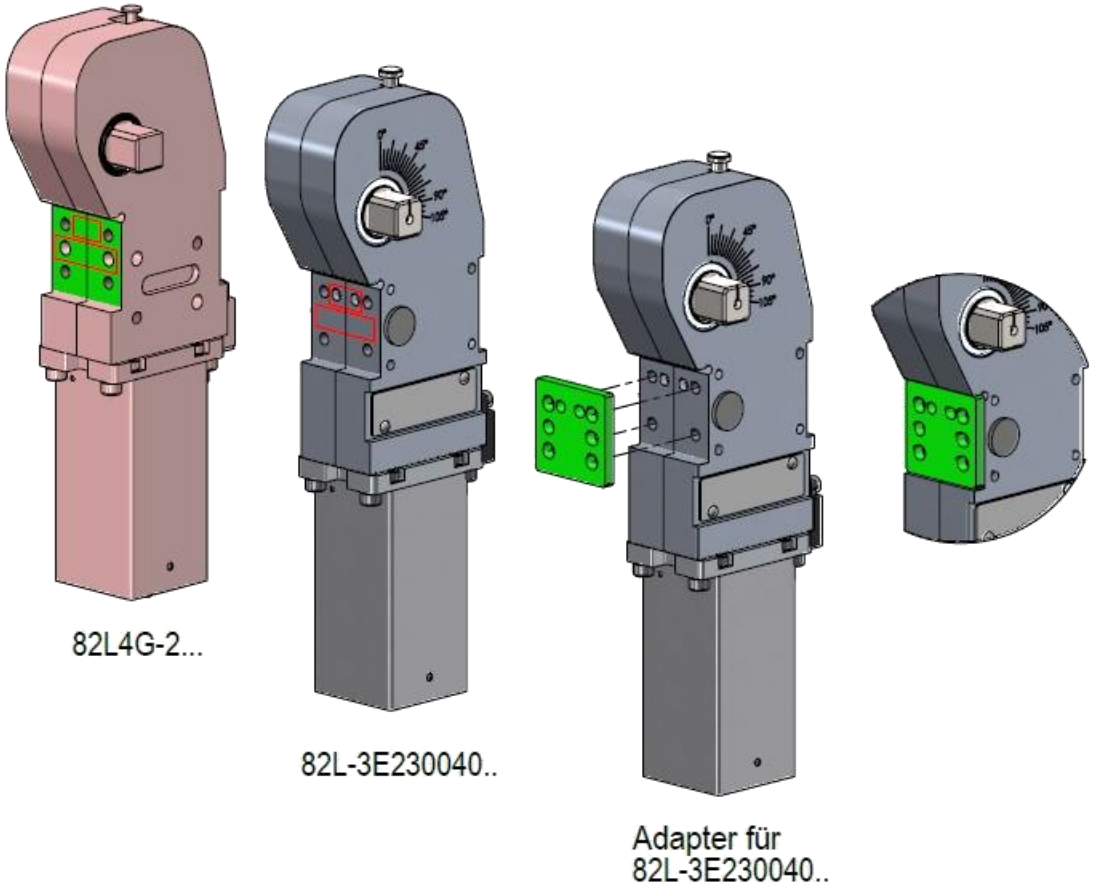


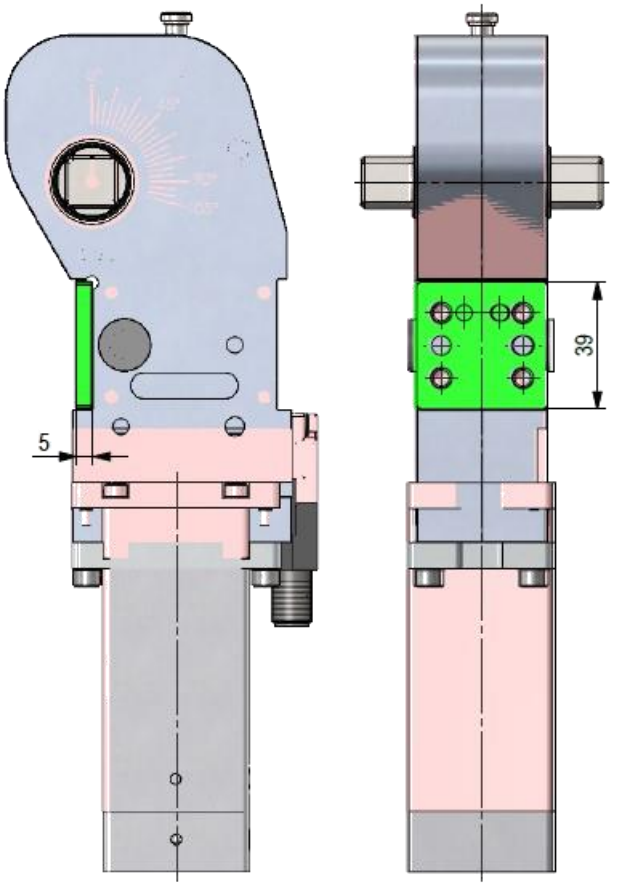


82L-3E vs 82L2G Replacement solution Size 40

Adapter Plate for replacement

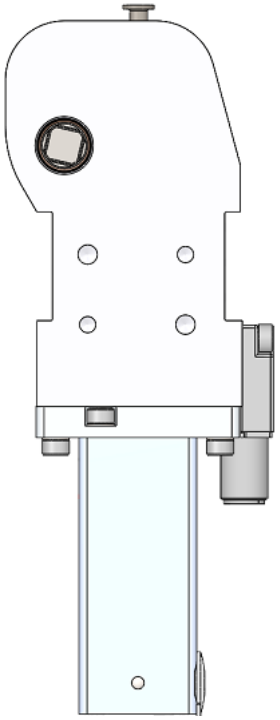
- Dowel holes for front mounting





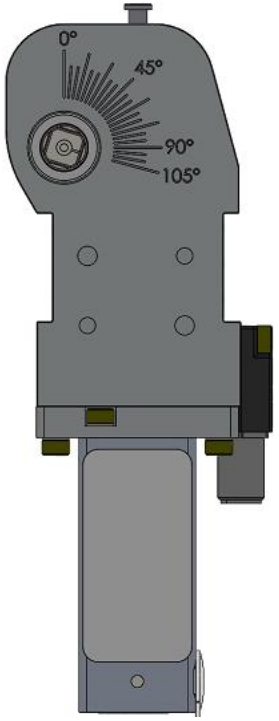
82L-4E Specials – Size 25 BMW group - Overview

82L2G-3



- Fixed Opening angle
- No Opening angle display
- bronze bushings for the drive shaft guidence

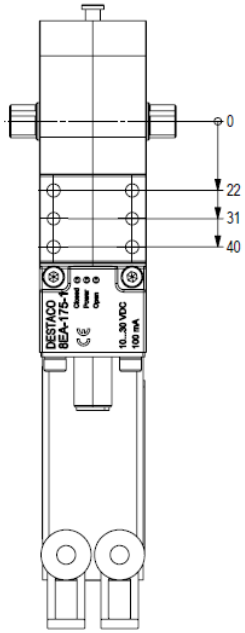
82L-4E 00 25

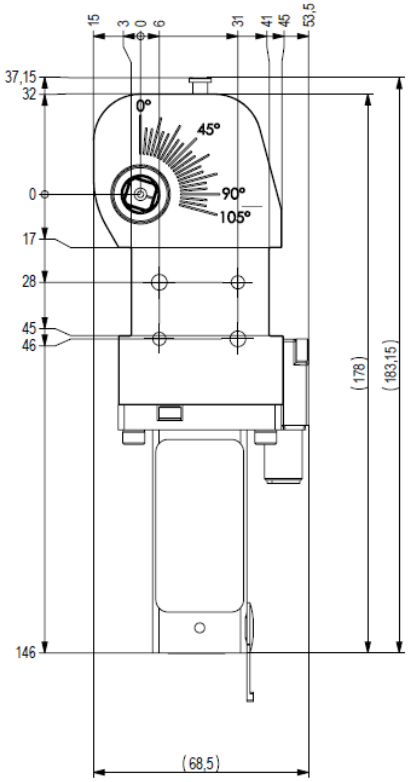


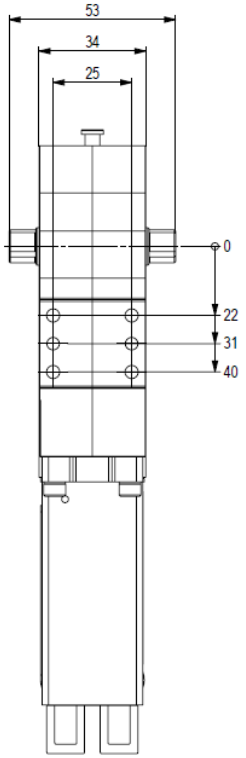
- Field adjustable arm opening angle
- Opening angle display
- Sealed needle Bearings for drive shaft guidence
- Same Dimension as 82L2G-3

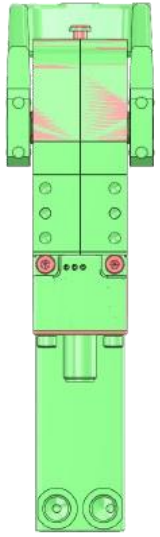
82L-3E Specials – Size 25 BMW group - Overview

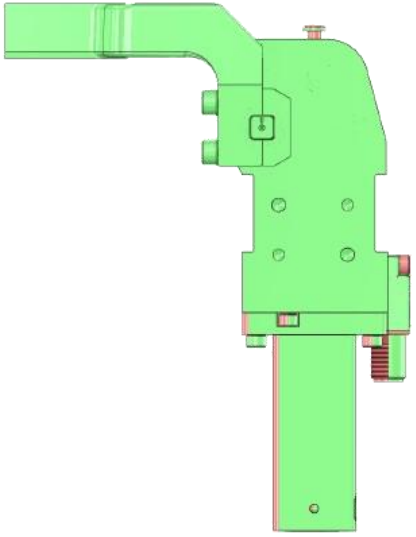
- Same dimensions

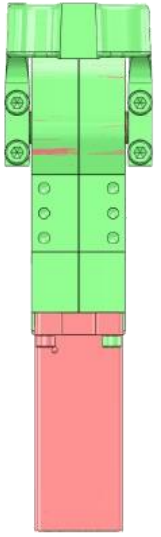


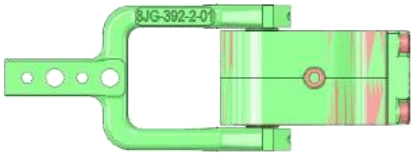


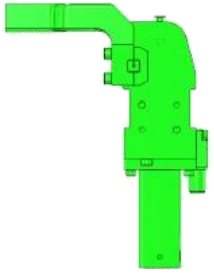












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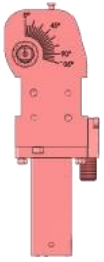

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Confidential Document

Many Thanks for your attention