

AUTOMATION: STAMPING PROCESSES



WHO WE ARE

More than 30 years' experience and the satisfaction of our customers endorse us as

EXPERTS ON FASTENING

TECHNOLOGY.

We strive to know the problems our customers face daily.

Only this profound knowledge of our customers allows us to design and offer products that provide a solution to the stamping processes.

TECHNICAL SALES ENGINEERS TEAM



Visit our web site www.misati.com to contact the sales engineer in your area.

PATENTED TECHNOLOGY



Our **minipincers** have many exclusive technical advantages, but the important thing is the benefits the customer will get with them: reduction in costs and increase of the productivity.

QUALITY PRODUCT



Just because we are convinced about the quality of our products, our minipincers are guaranteed for **7 years or 20 million cycles**. All of them are marked with number, lot and year of manufacture (traceability).

OWN PRODUCTION



Mass production, with state-of-the-art CNC machines, precise quality control and process innovation and improvement.

INTERNATIONAL DISTRIBUTION NETWORK



Standard elements on stock, with no added costs (packaging and shipping costs up to destination (EU) are included on the price list) and after-sales service.

TRAINING CENTRE



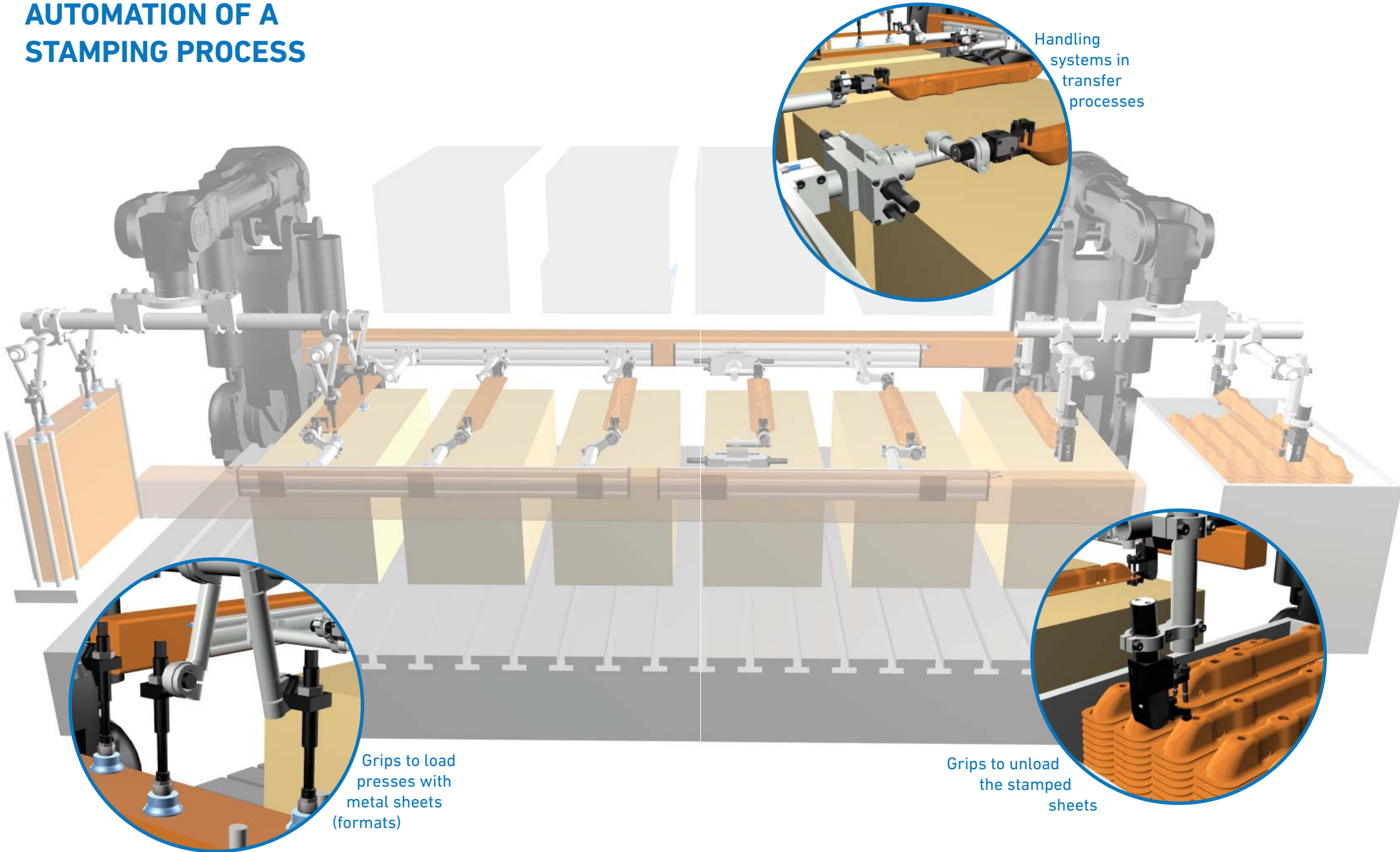
We provide technical training for companies stamping metal sheets and manufacturers of dies. We focus on production techniques for the following stamping automated processes:

- Transfer Press
- Grips for loading and unloading presses & interpresses



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AUTOMATION OF A STAMPING PROCESS

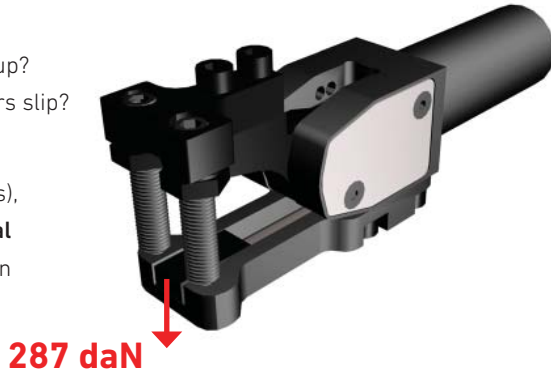


Misati's exclusive and patented technology provides the following benefits:

MORE PRODUCTIVITY

We want the press to stamp more sheets per minute, but what happens if the transfer speeds up? or if the sheets fastened by the pincers slip?

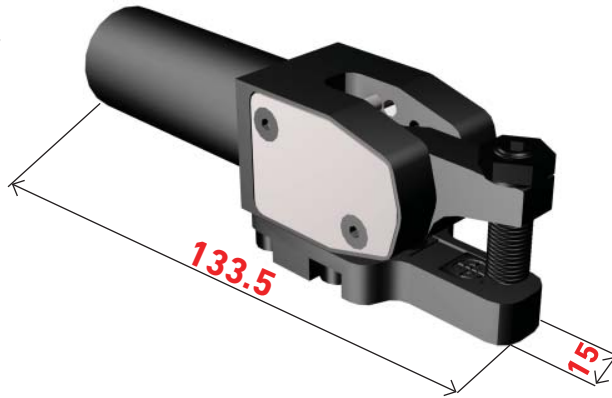
Thanks to a higher holding force (**59%** more than other manufacturers), Misati minipincers **guarantee the total safety when handling sheets** between dies, even at high accelerations.



MINIMUM SIZE & WEIGHT

Misati pincers are "mini" because they are **lighter and smaller** than other manufacturers' ones.

- Their minimum size (up to **47%**) facilitates their **access to the small cavities of the die**.
- Their minimum weight (up to **17%**) contributes to **lighten the transfer**, and so it is more productive.



0.49kg

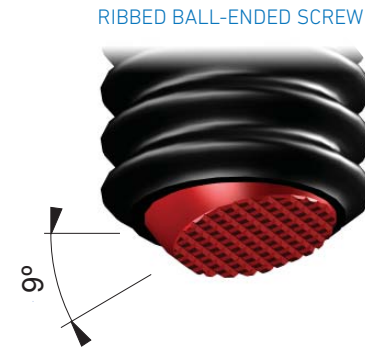
CONSUMPTION SAVING

The **lower air consumption** of our minipincers means saving up to **187€**/year per pincer, i.e., the cost of the components of the transfer is recovered quickly.



GUARANTEE & RELIABILITY

- The force mechanism has been designed with rolling elements in order to guarantee 20 million cycles.
- Gripper fingers with ribbed ball-ended screws perfectly adapt to the sheet to fasten.



| | | |
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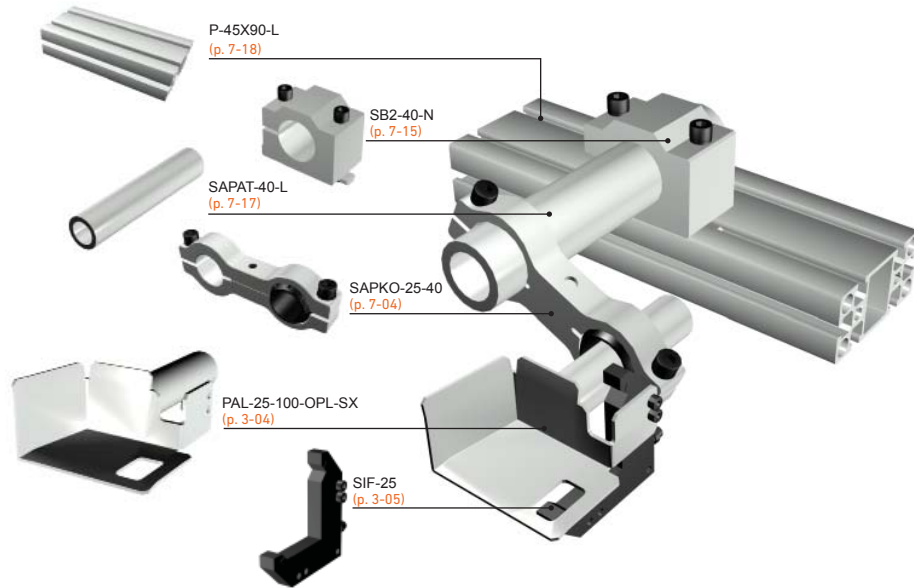
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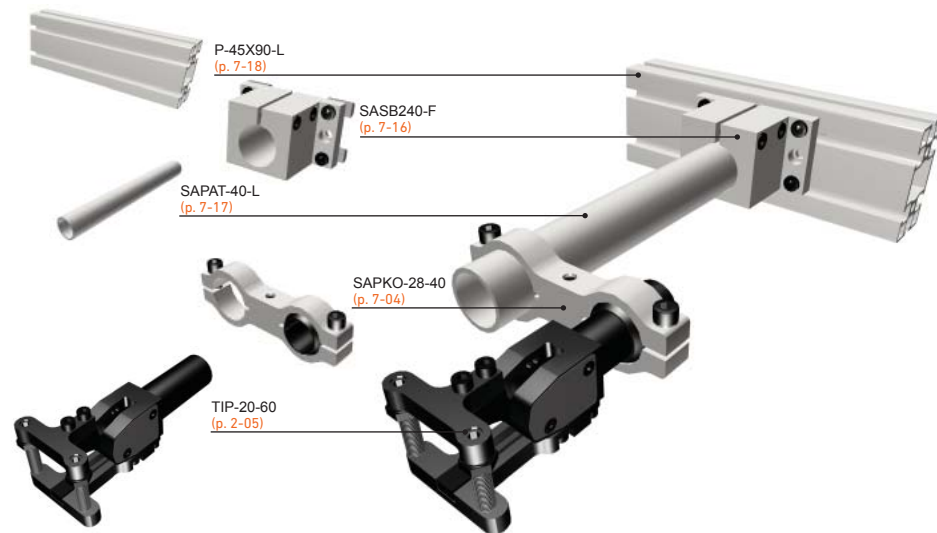
1 ASSEMBLIES



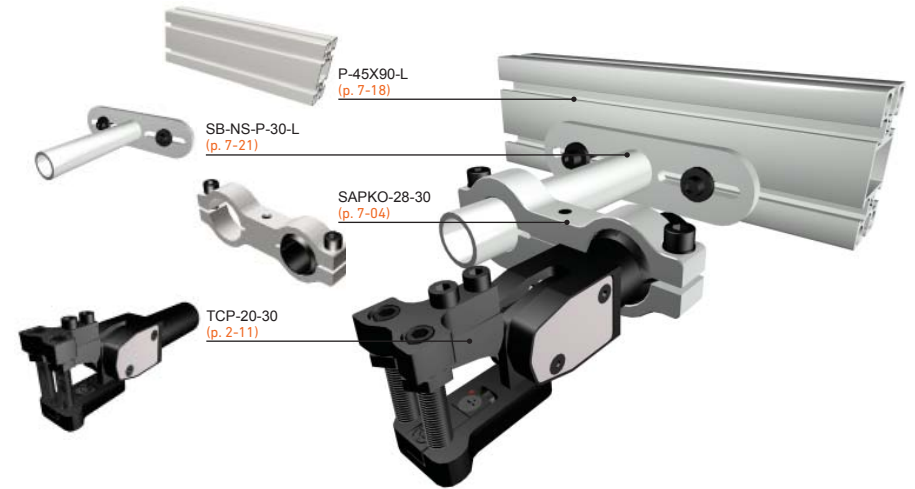
Assembly Nr. 1



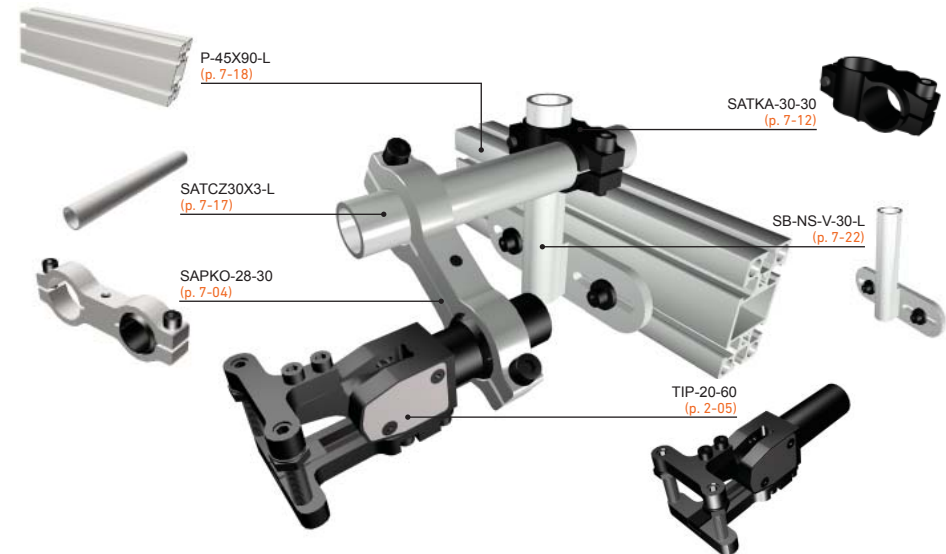
Assembly Nr. 2



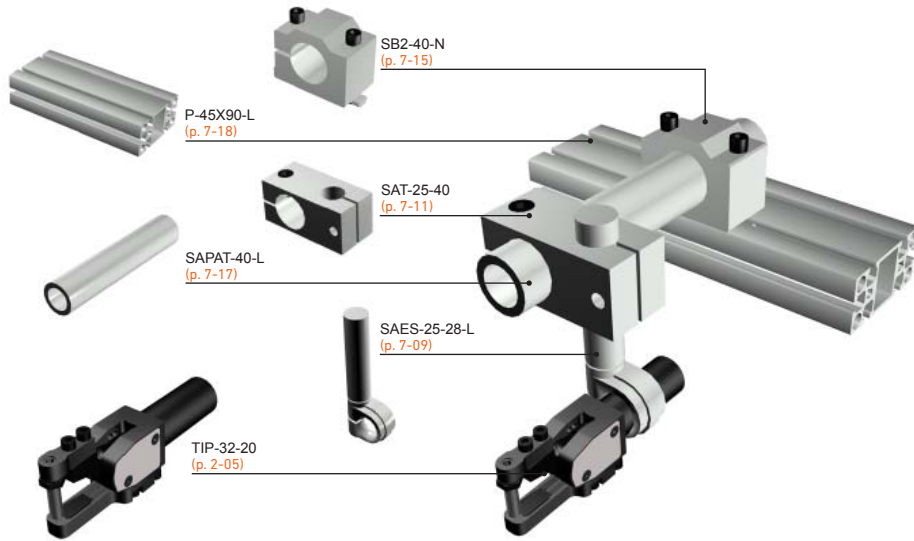
Assembly Nr. 3



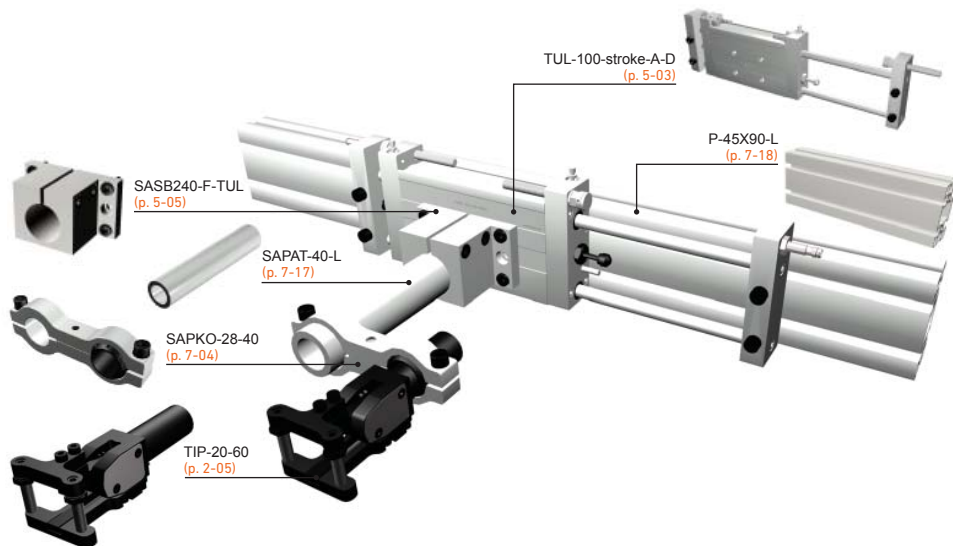
Assembly Nr. 4



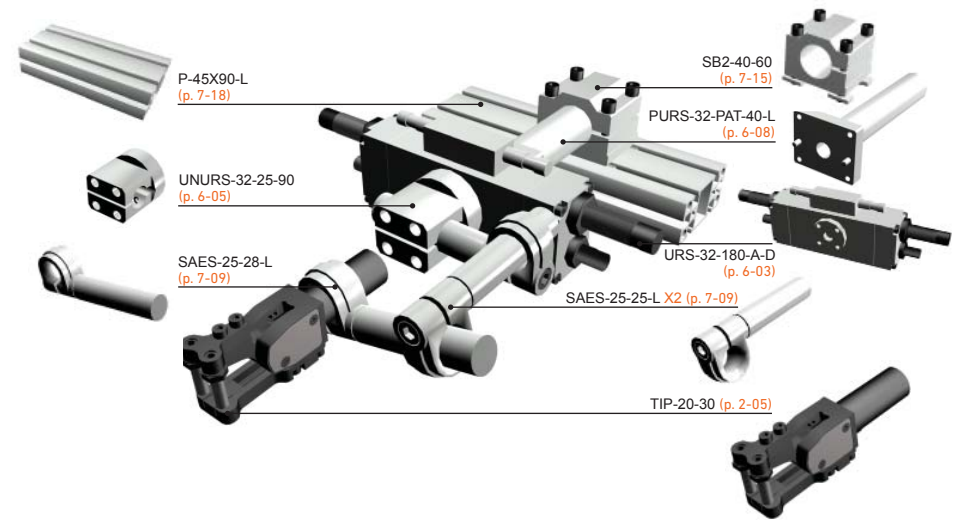
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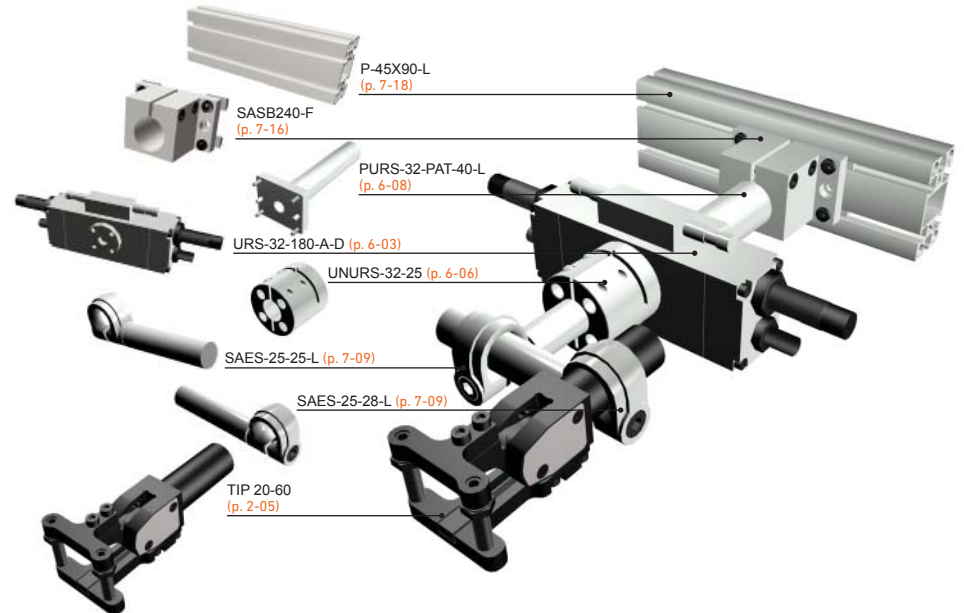
Assembly Nr. 6



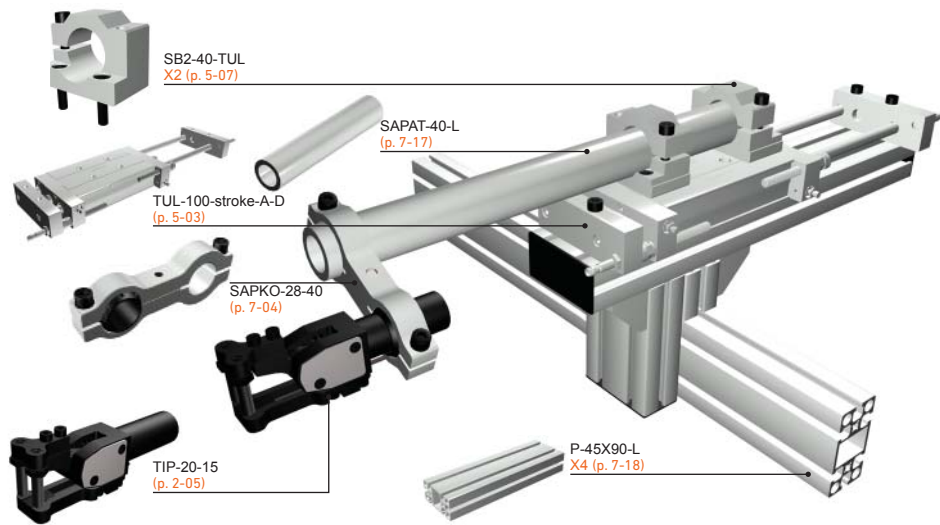
Assembly Nr. 7



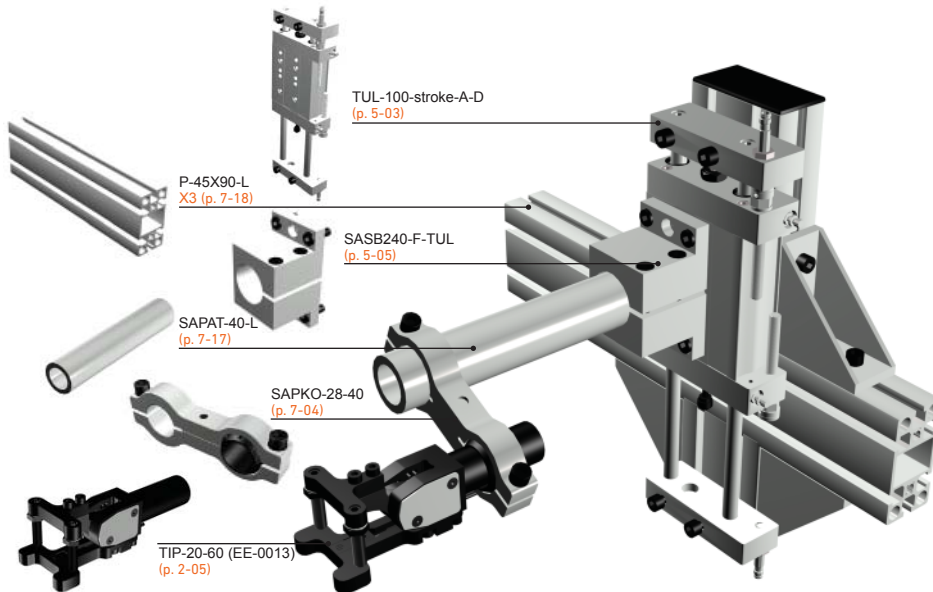
Assembly Nr. 8



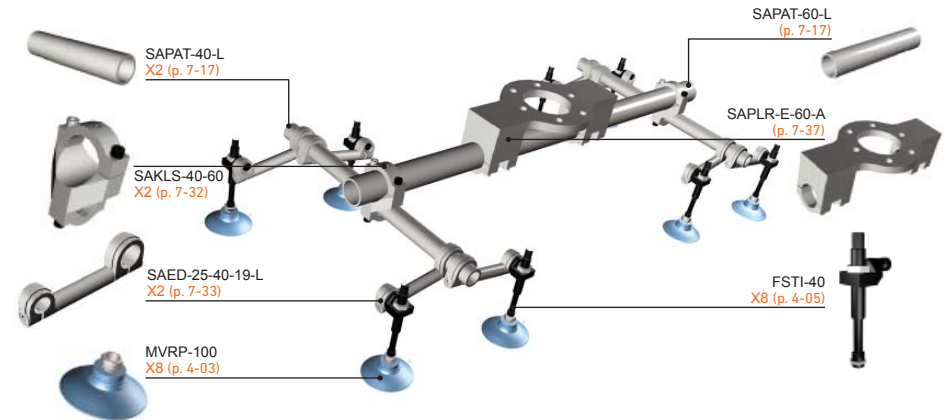
Assembly Nr. 9



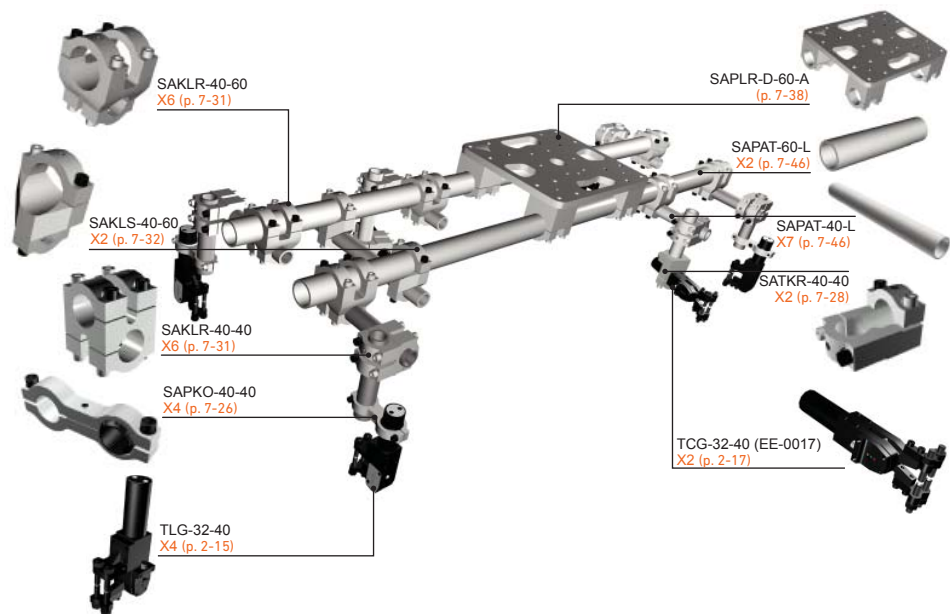
Assembly Nr. 10



Assembly Nr. 11



Assembly Nr. 12



2 MINIPINCERS

Minipincers

- Minipincer TIP-...
- Minipincer TI-...
- Minipincer TL-...
- Minipincer TCP-...
- Minipincer TIG-...
- Minipincer TLG-...
- Minipincer TCG-...

Accessories

- Ball-Ended Screw
- Sheet Detector
- Built-in Sensor



TCG-...
TIG-...
TLG-...



TIP-...
TCP-...

PINCERS FOR TRANSFERS

| MODEL | * OPENING | POSITION OF SHEET | MOVABLE ARM | WIDTH | PAGE |
|-------|-----------|-----------------------|-------------|---------|------|
| TIP | 20 | HORIZONTAL | 1 | 15...70 | 2-05 |
| TI | 90 | HORIZONTAL | 1 | 15...70 | 2-07 |
| TL | 90 | VERTICAL | 1 | 15...70 | 2-09 |
| TCP | 14+14 | HORIZONTAL TRANSVERSE | 2 | 15...70 | 2-11 |



* Standard opening. For special openings (EE-...), see p. 9-03.

PINCERS FOR GRIPS

| MODEL | * OPENING | POSITION OF SHEET | MOVABLE ARM | WIDTH | PAGE |
|-------|-----------|---------------------|-------------|---------|------|
| TIG | 90 | HORIZONTAL VERTICAL | 1 | 15...40 | 2-13 |
| TLG | 90 | HORIZONTAL VERTICAL | 1 | 15...40 | 2-15 |
| TCG | 14+14 | HORIZONTAL VERTICAL | 2 | 15...70 | 2-17 |



* Standard opening. For special openings (EE-...), contact Misati.

Ordering Information

TIP - 20 - 15

| MODEL OF THE PINCER | PISTON DIAMETER | WIDTH OF THE GRIPPER FINGER |
|---------------------|-----------------|-----------------------------|
| TIP | 20 | 15 |
| TI | 32 | 20 |
| TL | | 30 |
| TCP | | 40 |
| TIG | | 60 |
| TLG | | 70 |
| TCG | | |



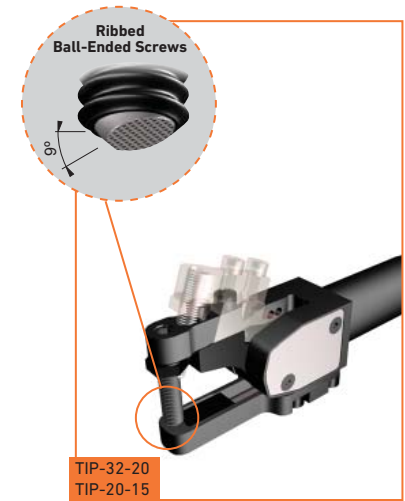
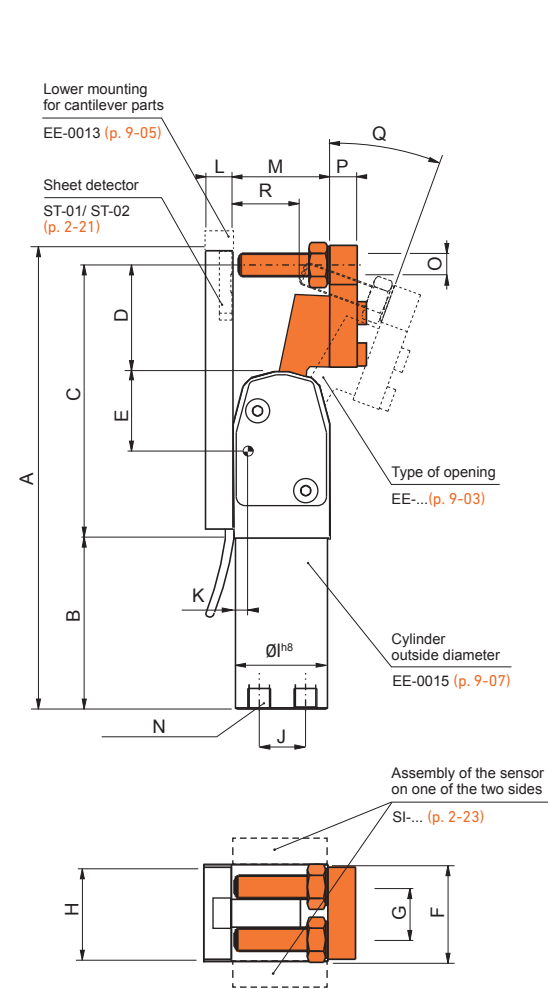
TIP-32-20
TIP-20-15

TIP-32-40
TIP-20-30

TIP-32-70
TIP-20-60

- Operating pressure: 6 bar (maximum: 10 bar)
- Material: F-114 mechanized & hardened steel

| TYPE | FASTENING MOMENTUM | CLAMPING FORCE | PISTON | CONSUMPTION | WEIGHT |
|-----------|--------------------|----------------|--------|--------------------|---------|
| TIP-20-15 | 60 Nm | 103 daN | Ø20 | 11 cm ³ | 0.63 kg |
| TIP-20-30 | 60 Nm | 103 daN | Ø20 | 11 cm ³ | 0.69 kg |
| TIP-20-60 | 60 Nm | 103 daN | Ø20 | 11 cm ³ | 0.73 kg |
| TIP-32-20 | 169 Nm | 205 daN | Ø32 | 27 cm ³ | 1.35 kg |
| TIP-32-40 | 169 Nm | 205 daN | Ø32 | 27 cm ³ | 1.43 kg |
| TIP-32-70 | 169 Nm | 205 daN | Ø32 | 27 cm ³ | 1.50 kg |



► Sheet detector (ST-01) included

| TYPE | A | B | C | D | E | F | G | H | ØI | J | K | L | M | N | O | P | Q | R |
|-----------|-----|----|-------|------|------|----|----|----|----|----|-----|----|----|------------------|--------|----|-----|----|
| TIP-20-15 | 150 | 63 | 80.5 | 31.5 | 26.5 | 32 | | 15 | 28 | 13 | 5.5 | 10 | 32 | M5 | M8X40 | 10 | 20° | 20 |
| TIP-20-30 | 150 | 63 | 80.5 | 31.5 | 26.5 | 32 | 17 | 30 | 28 | 13 | 5.5 | 10 | 32 | M5 | M8x40 | 10 | 20° | 20 |
| TIP-20-60 | 150 | 63 | 80.5 | 31.5 | 26.5 | 32 | 47 | 60 | 28 | 13 | 5.5 | 10 | 32 | M5 | M8X40 | 10 | 20° | 20 |
| TIP-32-20 | 182 | 60 | 113.9 | 45.9 | 36.5 | 42 | | 20 | 40 | 18 | 5.5 | 12 | 42 | G ^{1/8} | M10X50 | 12 | 14° | 21 |
| TIP-32-40 | 182 | 60 | 113.9 | 45.9 | 36.5 | 42 | 23 | 40 | 40 | 18 | 5.5 | 12 | 42 | G ^{1/8} | M10X50 | 12 | 14° | 21 |
| TIP-32-70 | 182 | 60 | 113.9 | 45.9 | 36.5 | 42 | 53 | 70 | 40 | 18 | 5.5 | 12 | 42 | G ^{1/8} | M10X50 | 12 | 14° | 21 |



TI-32-20
TI-20-15



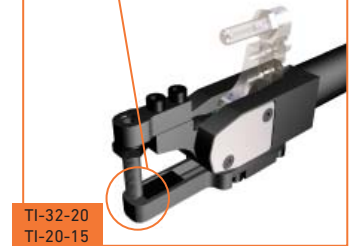
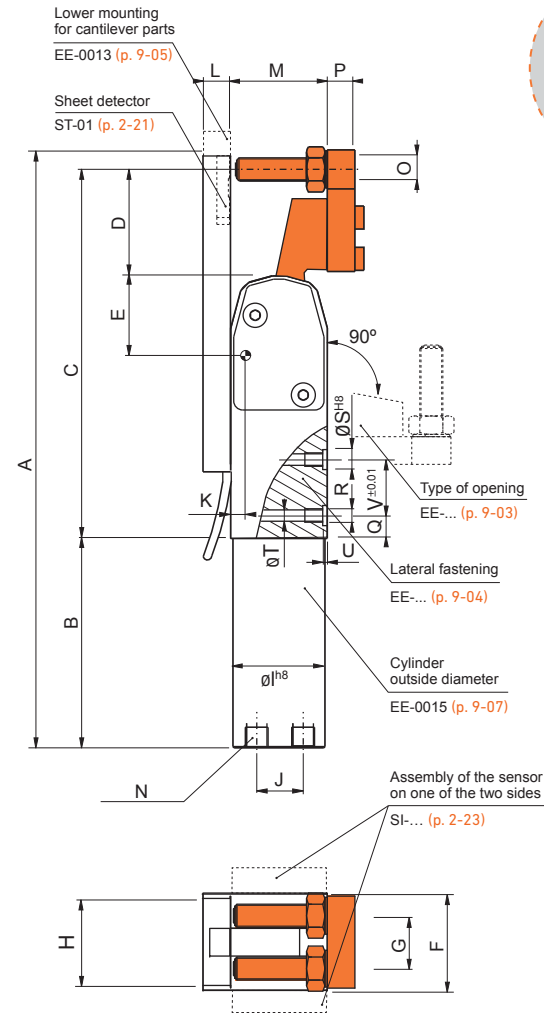
TI-32-40
TI-20-30



TI-32-70
TI-20-60

- **Operating pressure:** 6 bar (maximum: 10 bar)
- **Material:** F-114 mechanized & hardened steel

| TYPE | FASTENING MOMENTUM | CLAMPING FORCE | PISTON | CONSUMPTION | WEIGHT |
|----------|--------------------|----------------|--------|----------------------|---------|
| TI-20-15 | 60 Nm | 103 daN | Ø20 | 16.2 cm ³ | 0.82 kg |
| TI-20-30 | 60 Nm | 103 daN | Ø20 | 16.2 cm ³ | 0.89 kg |
| TI-20-60 | 60 Nm | 103 daN | Ø20 | 16.2 cm ³ | 0.94 kg |
| TI-32-20 | 169 Nm | 205 daN | Ø32 | 59 cm ³ | 2.01 kg |
| TI-32-40 | 169 Nm | 205 daN | Ø32 | 59 cm ³ | 2.08 kg |
| TI-32-70 | 169 Nm | 205 daN | Ø32 | 59 cm ³ | 2.12 kg |



► Sheet detector (ST-01) included

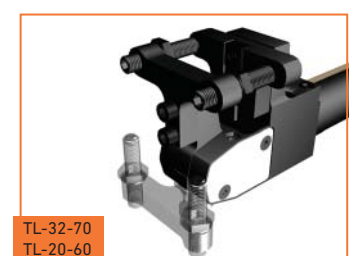
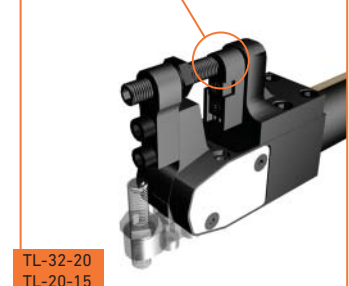
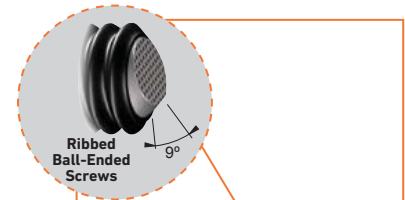
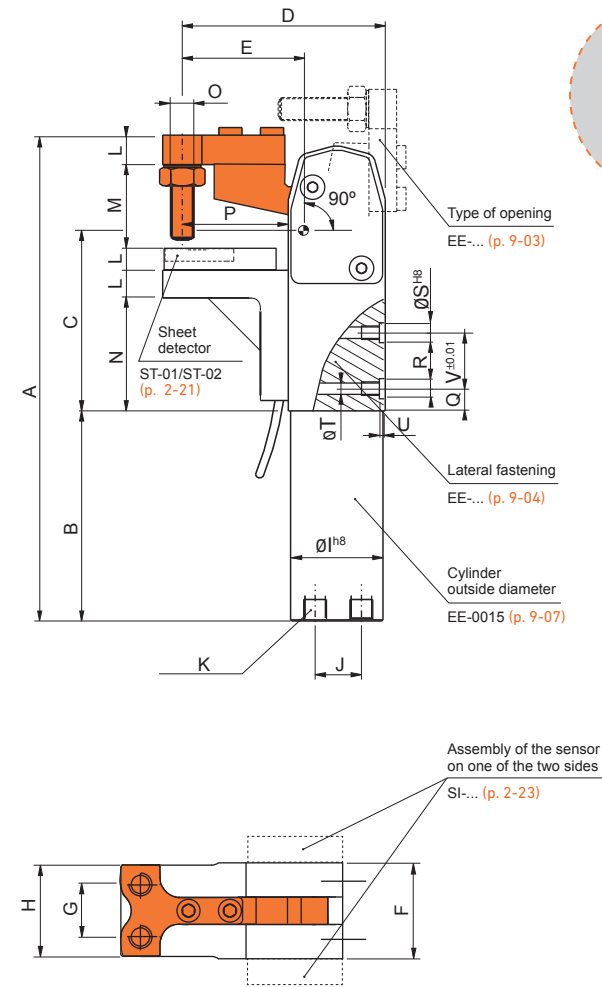
| TYPE | A | B | C | D | E | F | G | H | ØI | J | K | L | M | N | O | P | Q | R | ØS | ØT | U | V |
|----------|-----|----|-------|------|------|----|----|----|----|-----|-----|----|----|-------|--------|-----|-----|----|-----|-----|-------|-------|
| TI-20-15 | 188 | 70 | 111.5 | 31.5 | 26.5 | 32 | 15 | 28 | 13 | 5.5 | 10 | 32 | M5 | M8X40 | 10 | 7.5 | M5 | 7 | 4.2 | 2.1 | 17X27 | |
| TI-20-30 | 188 | 70 | 111.5 | 31.5 | 26.5 | 32 | 17 | 30 | 28 | 13 | 5.5 | 10 | 32 | M5 | M8X40 | 10 | 7.5 | M5 | 7 | 4.2 | 2.1 | 17X27 |
| TI-20-60 | 188 | 70 | 111.5 | 31.5 | 26.5 | 32 | 47 | 60 | 28 | 13 | 5.5 | 10 | 32 | M5 | M8X40 | 10 | 7.5 | M5 | 7 | 4.2 | 2.1 | 17X27 |
| TI-32-20 | 260 | 91 | 160.4 | 45.9 | 36.5 | 42 | 20 | 40 | 40 | 22 | 5.5 | 12 | 42 | G1/8 | M10X50 | 12 | 10 | M6 | 9 | 5 | 2.1 | 25X30 |
| TI-32-40 | 260 | 91 | 160.4 | 45.9 | 36.5 | 42 | 23 | 40 | 40 | 22 | 5.5 | 12 | 42 | G1/8 | M10X50 | 12 | 10 | M6 | 9 | 5 | 2.1 | 25X30 |
| TI-32-70 | 260 | 91 | 160.4 | 45.9 | 36.5 | 42 | 53 | 70 | 40 | 22 | 5.5 | 12 | 42 | G1/8 | M10X50 | 12 | 10 | M6 | 9 | 5 | 2.1 | 25X30 |



- **Operating pressure:** 6 bar (maximum: 10 bar)
- **Material:** F-114 mechanized & hardened steel

(1) Ask about delivery time

| TYPE | FASTENING MOMENTUM | CLAMPING FORCE | PISTON | CONSUMPTION | WEIGHT |
|--------------|--------------------|----------------|--------|-------------|---------|
| TL-20-15 (1) | 60 Nm | 162 daN | Ø20 | 16.2 cm³ | 0.70 kg |
| TL-20-30 | 60 Nm | 162 daN | Ø20 | 16.2 cm³ | 0.80 kg |
| TL-20-60 | 60 Nm | 162 daN | Ø20 | 16.2 cm³ | 0.90 kg |
| TL-32-20 (1) | 169 Nm | 329 daN | Ø32 | 59 cm³ | 1.55 kg |
| TL-32-40 | 169 Nm | 329 daN | Ø32 | 59 cm³ | 1.65 kg |
| TL-32-70 | 169 Nm | 329 daN | Ø32 | 59 cm³ | 1.80 kg |



► Sheet detector (ST-01 or ST-02) included

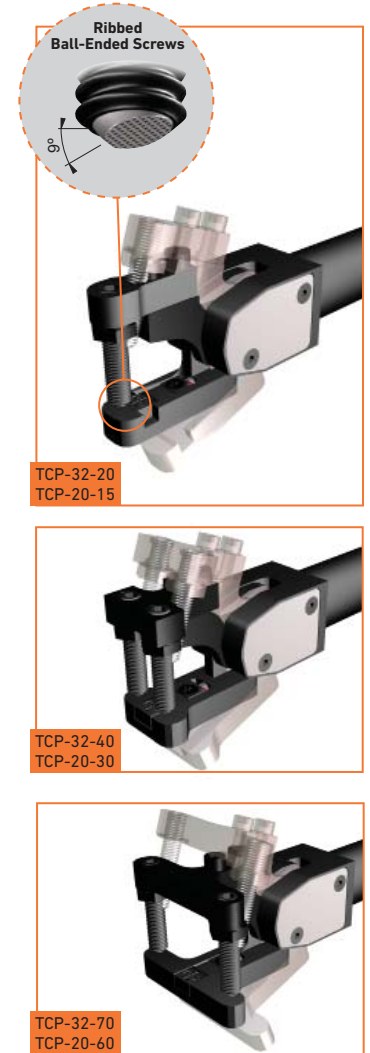
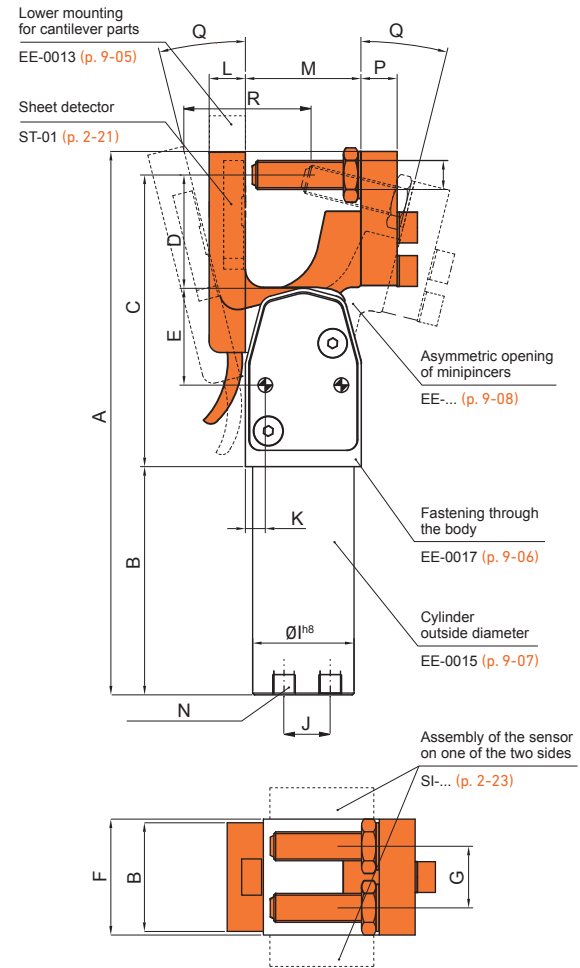
| TYPE | A | B | C | D | E | F | G | H | ØI | J | K | L | M | N | O | P | Q | R | ØS | ØT | U | V |
|----------|-------|----|------|------|------|----|----|----|----|----|------|----|----|------|--------|------|-----|----|----|-----|-----|-------|
| TL-20-15 | 154.5 | 70 | 53.5 | 63.5 | 37 | 32 | | 15 | 28 | 13 | M5 | 10 | 25 | 29.5 | M8X40 | 31.5 | 7.5 | M5 | 7 | 4.2 | 2.1 | 17X22 |
| TL-20-30 | 154.5 | 70 | 53.5 | 63.5 | 37 | 32 | 17 | 30 | 28 | 13 | M5 | 10 | 25 | 29.5 | M8x40 | 31.5 | 7.5 | M5 | 7 | 4.2 | 2.1 | 17X22 |
| TL-20-60 | 154.5 | 70 | 53.5 | 63.5 | 37 | 32 | 47 | 60 | 28 | 13 | M5 | 10 | 25 | 29.5 | M8X40 | 31.5 | 7.5 | M5 | 7 | 4.2 | 2.1 | 17X22 |
| TL-32-20 | 209.5 | 91 | 78 | 87.9 | 51.4 | 42 | | 20 | 40 | 22 | G1/8 | 12 | 40 | 52.5 | M10X50 | 45.9 | 10 | M6 | 9 | 5 | 2.1 | 25X30 |
| TL-32-40 | 209.5 | 91 | 78 | 87.9 | 51.4 | 42 | 23 | 40 | 40 | 22 | G1/8 | 12 | 40 | 52.5 | M10X50 | 45.9 | 10 | M6 | 9 | 5 | 2.1 | 25X30 |
| TL-32-70 | 209.5 | 91 | 78 | 87.9 | 51.4 | 42 | 53 | 70 | 40 | 22 | G1/8 | 12 | 40 | 52.5 | M10X50 | 45.9 | 10 | M6 | 9 | 5 | 2.1 | 25X30 |



- Operating pressure: 6 bar (maximum: 10 bar)
- Material: F-114 mechanized & hardened steel

(1) Ask about delivery time

| TYPE | FASTENING MOMENTUM | CLAMPING FORCE | PISTON | CONSUMPTION | WEIGHT |
|---------------|--------------------|----------------|--------|--------------------|---------|
| TCP-20-15 (1) | 60 Nm | 103 daN | Ø20 | 11 cm ³ | 0.49 kg |
| TCP-20-30 | 60 Nm | 103 daN | Ø20 | 11 cm ³ | 0.50 kg |
| TCP-20-60 | 60 Nm | 103 daN | Ø20 | 11 cm ³ | 0.62 kg |
| TCP-32-20 (1) | 169 Nm | 205 daN | Ø32 | 27 cm ³ | 1.10 kg |
| TCP-32-40 | 169 Nm | 205 daN | Ø32 | 27 cm ³ | 1.25 kg |
| TCP-32-70 | 169 Nm | 205 daN | Ø32 | 27 cm ³ | 1.30 kg |



► Sheet detector (ST-01 or ST-2) included

| TYPE | A | B | C | D | E | F | G | H | ØI | J | K | L | M | N | O | P | Q | R |
|-----------|-----|----|-------|------|------|----|----|----|----|----|-----|----|----|------------------|--------|----|-----|----|
| TCP-20-15 | 150 | 63 | 80.5 | 31.5 | 26.5 | 32 | 15 | 15 | 28 | 13 | 5.5 | 10 | 32 | M5 | M8x40 | 10 | 14° | 38 |
| TCP-20-30 | 150 | 63 | 80.5 | 31.5 | 26.5 | 32 | 17 | 30 | 28 | 13 | 5.5 | 10 | 32 | M5 | M8x40 | 10 | 14° | 38 |
| TCP-20-60 | 150 | 63 | 80.5 | 31.5 | 26.5 | 32 | 47 | 60 | 28 | 13 | 5.5 | 10 | 32 | M5 | M8x40 | 10 | 14° | 38 |
| TCP-32-20 | 182 | 60 | 113.9 | 45.9 | 36.5 | 42 | 20 | 20 | 40 | 18 | 5.5 | 12 | 42 | G ^{1/8} | M10x50 | 12 | 14° | 40 |
| TCP-32-40 | 182 | 60 | 113.9 | 45.9 | 36.5 | 42 | 23 | 40 | 40 | 18 | 5.5 | 12 | 42 | G ^{1/8} | M10x50 | 12 | 14° | 40 |
| TCP-32-70 | 182 | 60 | 113.9 | 45.9 | 36.5 | 42 | 53 | 70 | 40 | 18 | 5.5 | 12 | 42 | G ^{1/8} | M10x50 | 12 | 14° | 40 |

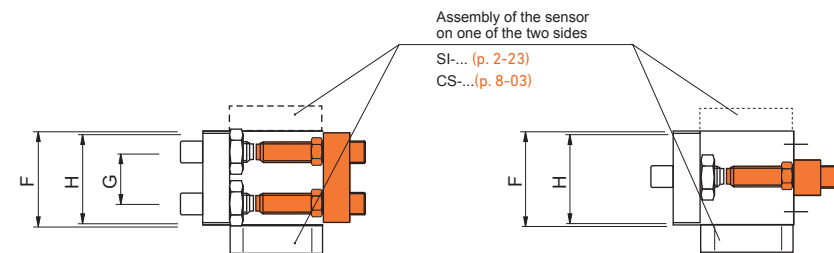
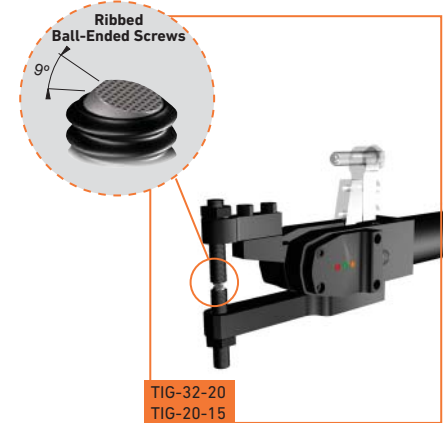
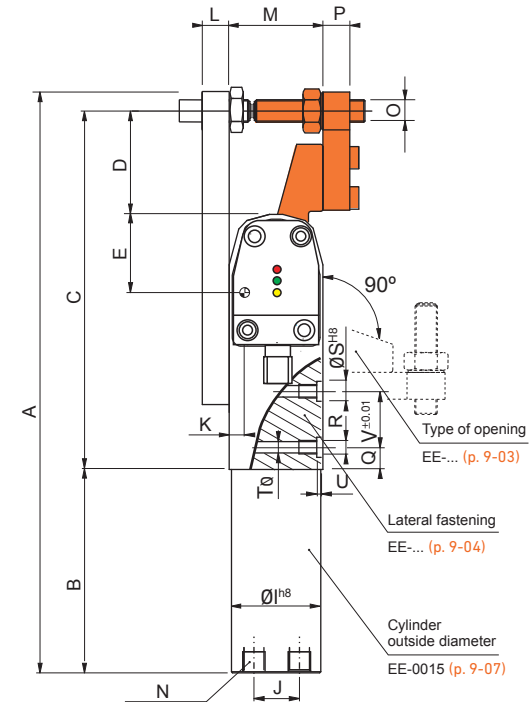


TIG-32-20
TIG-20-15

TIG-32-40
TIG-20-30

- **Operating pressure:** 6 bar (maximum: 10 bar)
- **Material:** F-114 mechanized & hardened steel

| TYPE | FASTENING MOMENTUM | CLAMPING FORCE | PISTON | CONSUMPTION | WEIGHT |
|-----------|--------------------|----------------|--------|----------------------|---------|
| TIG-20-15 | 60 Nm | 103 daN | Ø20 | 16.2 cm ³ | 0.75 kg |
| TIG-20-30 | 60 Nm | 103 daN | Ø20 | 16.2 cm ³ | 0.80 kg |
| TIG-32-20 | 169 Nm | 205 daN | Ø32 | 59 cm ³ | 1.35 kg |
| TIG-32-40 | 169 Nm | 205 daN | Ø32 | 59 cm ³ | 1.50 kg |



► Sensor (SI-...) included

| TYPE | A | B | C | D | E | F | G | H | Ø | J | K | L | M | N | O | P | Q | R | ØS | ØT | U | V |
|-----------|-----|----|-------|------|------|----|----|----|----|----|-----|----|----|------|-----------|----|-----|----|----|-----|-----|-------|
| TIG-20-15 | 188 | 70 | 111.5 | 31.5 | 26.5 | 32 | | 30 | 28 | 13 | 5.5 | 10 | 32 | M5 | M8X40/30 | 10 | 7.5 | M5 | 7 | 4.2 | 2.1 | 17x22 |
| TIG-20-30 | 188 | 70 | 111.5 | 31.5 | 26.5 | 32 | 17 | 30 | 28 | 13 | 5.5 | 10 | 32 | M5 | M8X40/30 | 10 | 7.5 | M5 | 7 | 4.2 | 2.1 | 17x22 |
| TIG-32-20 | 260 | 91 | 160.4 | 45.9 | 36.5 | 42 | | 40 | 40 | 22 | 5.5 | 14 | 42 | G1/8 | M10X50/40 | 12 | 10 | M6 | 9 | 5 | 2.1 | 25x30 |
| TIG-32-40 | 260 | 91 | 160.4 | 45.9 | 36.5 | 42 | 23 | 40 | 40 | 22 | 5.5 | 14 | 42 | G1/8 | M10X50/40 | 12 | 10 | M6 | 9 | 5 | 2.1 | 25x30 |

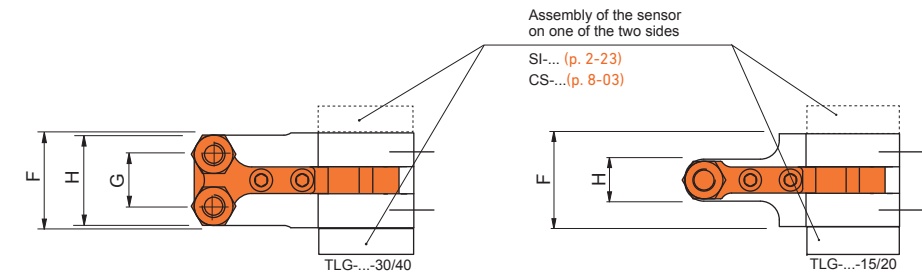
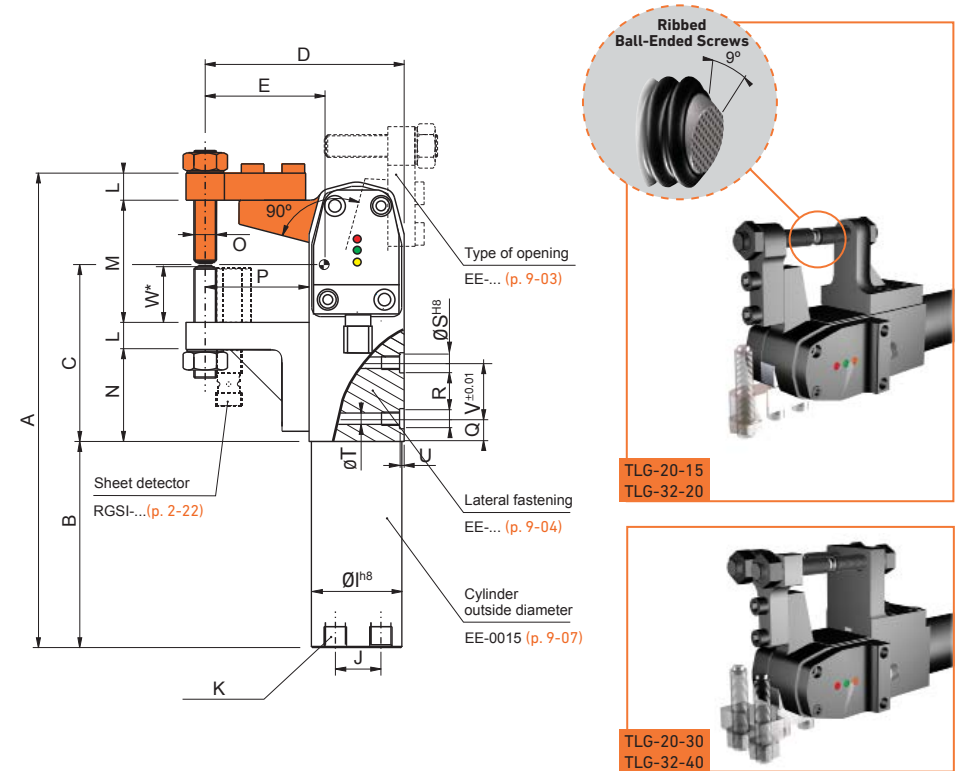


TLG-20-15
TLG-32-20

TLG-20-30
TLG-32-40

- **Operating pressure:** 6 bar (maximum: 10 bar)
- **Material:** F-114 mechanized & hardened steel

| TYPE | FASTENING MOMENTUM | CLAMPING FORCE | PISTON | CONSUMPTION | WEIGHT |
|-----------|--------------------|----------------|--------|----------------------|---------|
| TLG-20-15 | 60 Nm | 162 daN | Ø20 | 16.2 cm ³ | 0.80 kg |
| TLG-20-30 | 60 Nm | 162 daN | Ø20 | 16.2 cm ³ | 0.80 kg |
| TLG-32-20 | 169 Nm | 329 daN | Ø32 | 59 cm ³ | 1.65 kg |
| TLG-32-40 | 169 Nm | 329 daN | Ø32 | 52 cm ³ | 1.65 kg |



► Sensor (SI-...) included

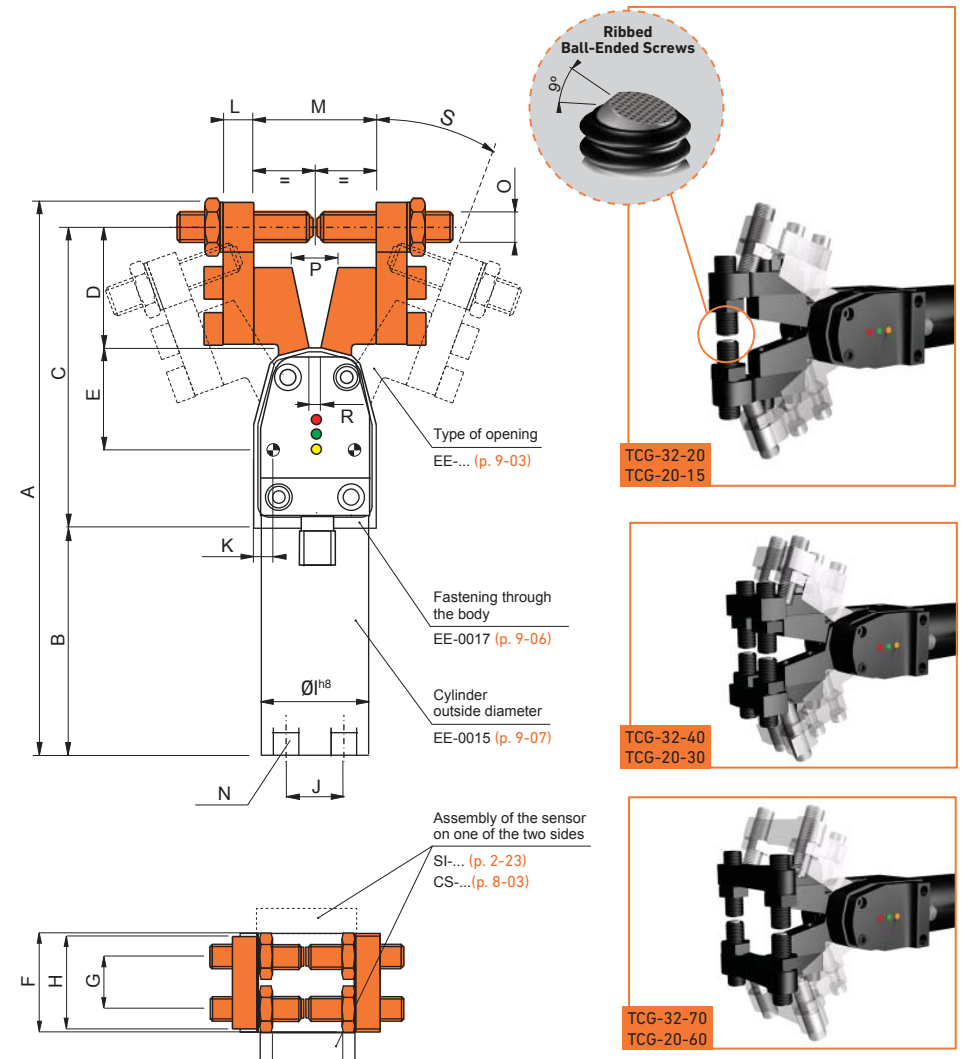
* If the detector RGSi is used, the Ball-Ended Screw is delivered with "W" dimension.

| TYPE | A | B | C | D | E | F | G | H | ØI | J | K | L | M | N | O | P | Q | R | ØS | ØT | U | V | W* |
|-----------|-------|----|------|------|------|----|----|----|----|----|------|----|----|------|--------|------|-----|----|----|-----|-----|-------|------|
| TLG-20-15 | 154.5 | 70 | 53.5 | 63.5 | 37 | 32 | | 15 | 28 | 13 | M5 | 10 | 35 | 29.5 | M8X40 | 31.5 | 7.5 | M5 | 7 | 4.2 | 2.1 | 17X22 | 13.5 |
| TLG-20-30 | 154.5 | 70 | 53.5 | 63.5 | 37 | 32 | 17 | 30 | 28 | 13 | M5 | 10 | 35 | 17 | M8X40 | 31.5 | 7.5 | M5 | 7 | 4.2 | 2.1 | 17X22 | 13.5 |
| TLG-32-20 | 209.5 | 91 | 78 | 87.9 | 51.4 | 42 | | 20 | 40 | 22 | G1/8 | 12 | 52 | 25 | M10X50 | 45.9 | 10 | M6 | 9 | 5 | 2.1 | 25X30 | 23 |
| TLG-32-40 | 209.5 | 91 | 78 | 87.9 | 51.4 | 42 | 23 | 40 | 40 | 22 | G1/8 | 12 | 52 | 52.5 | M10X50 | 45.9 | 10 | M6 | 9 | 5 | 2.1 | 25X30 | 23 |



- **Operating pressure:** 6 bar (maximum: 10 bar)
- **Material:** F-114 mechanized & hardened steel

| TYPE | FASTENING MOMENTUM | CLAMPING FORCE | PISTON | CONSUMPTION | WEIGHT |
|-----------|--------------------|----------------|--------|----------------------|---------|
| TCG-20-15 | 60 Nm | 103 daN | Ø20 | 16.2 cm ³ | 0.55 kg |
| TCG-20-30 | 60 Nm | 103 daN | Ø20 | 16.2 cm ³ | 0.58 kg |
| TCG-20-60 | 60 Nm | 103 daN | Ø20 | 16.2 cm ³ | 0.62 kg |
| TCG-32-20 | 169 Nm | 205 daN | Ø32 | 59 cm ³ | 1.09 kg |
| TCG-32-40 | 169 Nm | 205 daN | Ø32 | 59 cm ³ | 1.15 kg |
| TCG-32-70 | 169 Nm | 205 daN | Ø32 | 59 cm ³ | 1.26 kg |



► Sensor (SI-...) included

| TYPE | A | B | C | D | E | F | G | H | ØI | J | K | L | M | N | O | P | R | S |
|-----------|-----|----|-------|------|------|----|----|----|----|----|-----|----|----|------------------|--------|----|-----|-----|
| TCG-20-15 | 150 | 63 | 80.5 | 31.5 | 26.5 | 32 | | 15 | 28 | 13 | 5.5 | 10 | 32 | M5 | M8X30 | 12 | 3 | 14° |
| TCG-20-30 | 150 | 63 | 80.5 | 31.5 | 26.5 | 32 | 17 | 30 | 28 | 13 | 5.5 | 10 | 32 | M5 | M8X30 | 12 | 3 | 14° |
| TCG-20-60 | 150 | 63 | 80.5 | 31.5 | 26.5 | 32 | 47 | 60 | 28 | 13 | 5.5 | 10 | 32 | M5 | M8X30 | 12 | 3 | 14° |
| TCG-32-20 | 182 | 60 | 113.9 | 45.9 | 36.5 | 42 | | 20 | 40 | 22 | 5.5 | 12 | 42 | G ^{1/8} | M10X40 | 18 | 4.8 | 14° |
| TCG-32-40 | 182 | 60 | 113.9 | 45.9 | 36.5 | 42 | 23 | 40 | 40 | 22 | 5.5 | 12 | 42 | G ^{1/8} | M10X40 | 18 | 4.8 | 14° |
| TCG-32-70 | 182 | 60 | 113.9 | 45.9 | 36.5 | 42 | 53 | 70 | 40 | 22 | 5.5 | 12 | 42 | G ^{1/8} | M10X40 | 18 | 4.8 | 14° |

Flat surface:

■ RP-... ■ RGD-...

Ribbed surface:

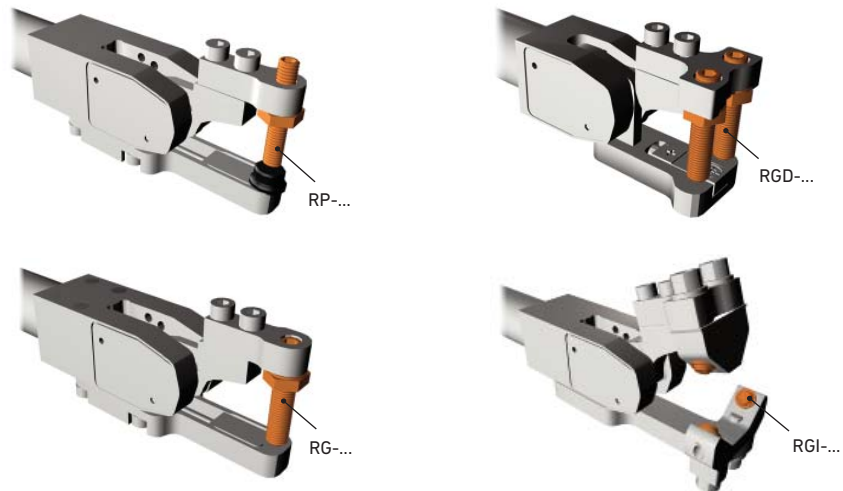
■ RG-... ■ RGI-...



- For very delicate pieces, it is recommended to use the Flat Ball-Ended Screw RP-... or RGD-...
- For shaped sheets, it is recommended to use the Ball-Ended Screw RGI-01 or RGI-02: they adapt perfectly to the surface of the sheet and they don't need to be CNC machined.



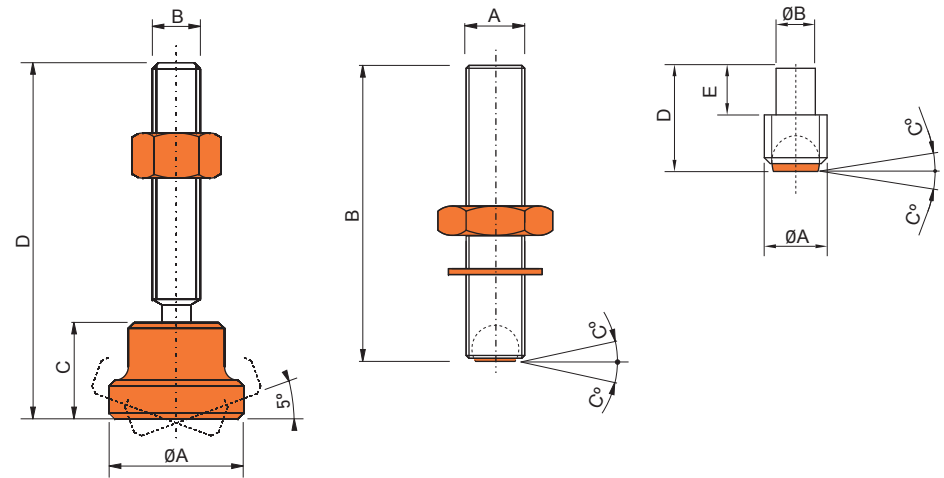
Examples of applications



■ RP-...

■ RGD-... ■ RG-...

■ RGI-...



► Bolts included

- Material: hardened steel & Delrin (RGD-...)
- Material: hardened steel (RP-..., RG-..., RGI-...)

■ For very delicate pieces, it is recommended to use the Flat Ball-Ended Screw RP-... or RGD-...

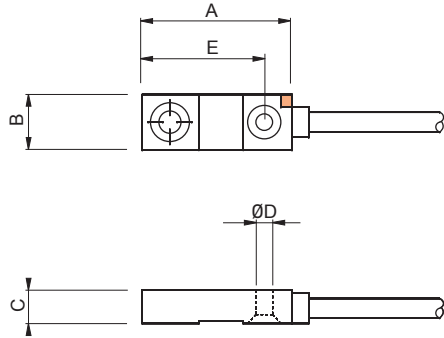
| RGI | | | | | | RGD | | | |
|--------|-----|----|---|----|---|--------|-----|------|---|
| TIPO | A | ØB | C | D | E | TYPE | A | B | C |
| RGI-20 | M8 | 5 | 9 | 12 | 6 | RGD-20 | M8 | 41.6 | 0 |
| RGI-32 | M10 | 6 | 9 | 14 | 6 | RGD-32 | M10 | 51.9 | 0 |
| RGI-40 | M12 | 8 | 9 | 18 | 8 | | | | |

| RP | | | | | RG | | | |
|---------|----|-----|----|----|----------|-----|----|---|
| TYPE | ØA | B | C | D | TYPE | A | B | C |
| RP-05 | 14 | M5 | 10 | 37 | RG-20 | M8 | 40 | 9 |
| RP-06/D | 12 | M6 | 7 | 32 | RG-32 | M10 | 50 | 9 |
| RP-08/D | 16 | M8 | 9 | 48 | RG-20-30 | M8 | 30 | 9 |
| RP-10/D | 20 | M10 | 11 | 64 | RG-32-40 | M10 | 40 | 9 |
| RP-12/D | 25 | M12 | 13 | 65 | 85 | 105 | | |

Weight (kg)

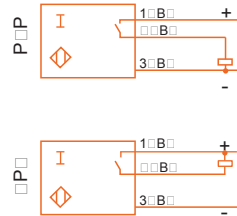
| | |
|----------|-------------|
| RP-05 | 0.018 |
| RP-06/D | 0.016-0.019 |
| RP-08/D | 0.030-0.034 |
| RP-10/D | 0.063-0.072 |
| RP-12/D | 0.096-0.120 |
| RGD-20 | 0.11 |
| RGD-32 | 0.21 |
| RG-20 | 0.12 |
| RG-32 | 0.22 |
| RG-20-30 | 0.08 |
| RG-32-40 | 0.19 |
| RGI-20 | 0.01 |
| RGI-30 | 0.02 |
| RGI-40 | 0.03 |

ST-...



| | Weight (kg) |
|--------|-------------|
| ST-01 | 0.02 |
| ST-02 | 0.01 |
| ST-01N | 0.02 |
| ST-02N | 0.01 |

Electrical connections



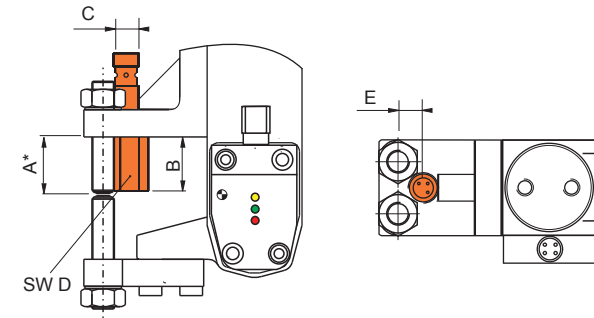
- ▶ Bolts included
- Material: PPS IP67
- ST-02 & ST-02N are only used with minipincers TL-20-15 & TCP-20-15
- ST-02 & ST-02N end with male connector M8X1

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Examples of applications



| TYPE | A | B | C | ØD | E |
|--------|----|----|-----|-----|----|
| ST-01 | 27 | 10 | 6 | 3 | 22 |
| ST-02 | 16 | 8 | 4.7 | 2.6 | 12 |
| ST-01N | 27 | 10 | 6 | 3 | 22 |
| ST-02N | 16 | 8 | 4.7 | 2.6 | 12 |



- ▶ Sensor M8X1 included
- Only used with minipincers TLG

Example of application



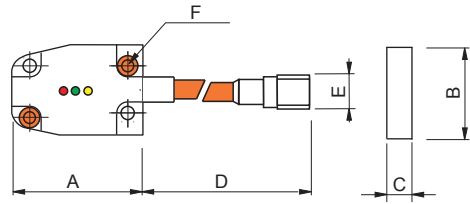
| TYPE | A | B | C | D | E |
|---------|------|------|-------|----|---|
| RGSI-20 | 13.5 | 13 | M12X1 | 11 | 9 |
| RGSI-32 | 23 | 22.5 | M12X1 | 11 | 0 |

MINIPINCERS - Built-in Sensor

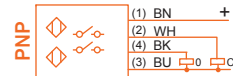
Stamping

SI-...

SI-20, SI-20N



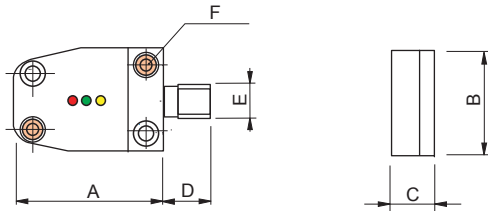
Electrical connections



| | Weight (kg) |
|--------|-------------|
| SI-20 | 0.02 |
| SI-20N | 0.02 |
| SI-32 | 0.02 |
| SI-32N | 0.02 |

Material: PA6 IP65

SI-32, SI-32N



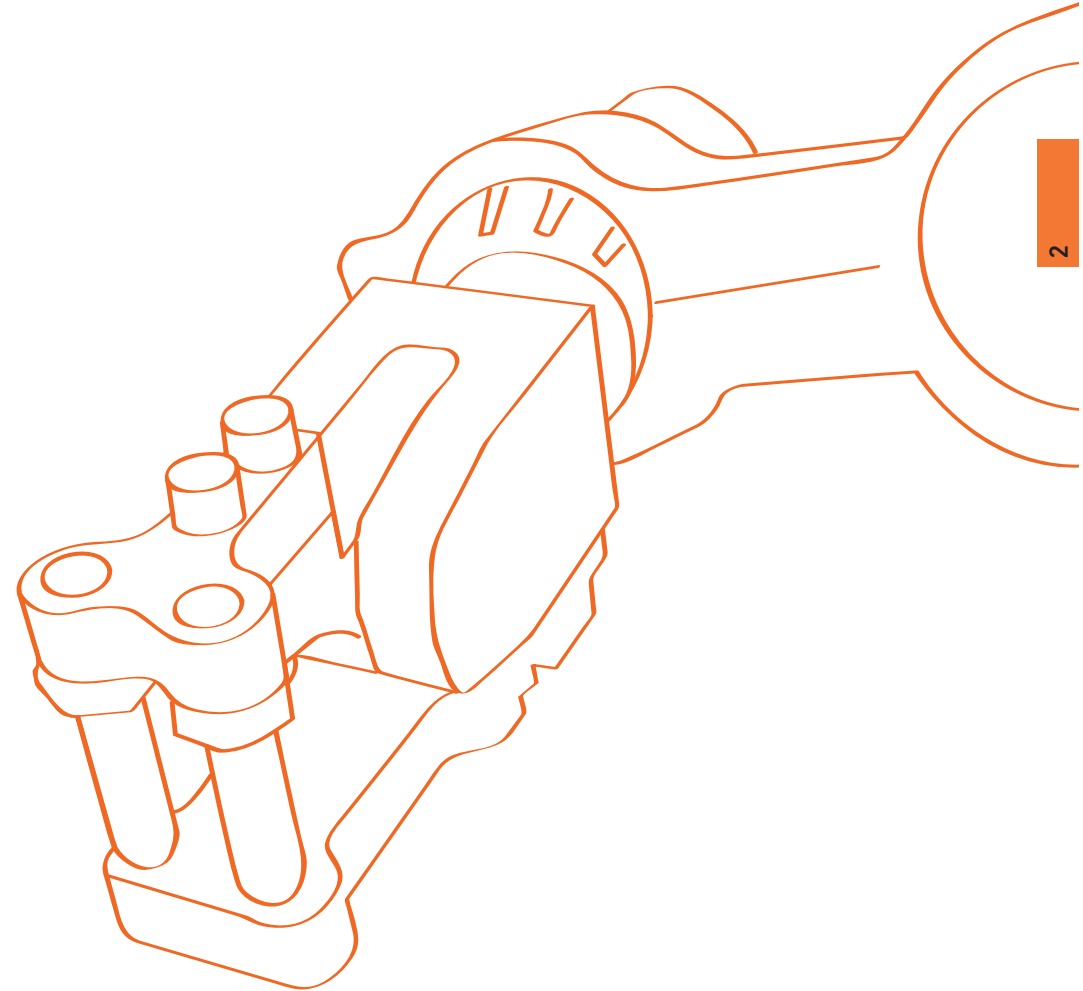
End position signaling of the arm

Examples of applications



| PNP | | | | | | |
|-------|------|----|----|-----|-------|----|
| TYPE | A | B | C | D | E | F |
| SI-20 | 42.2 | 26 | 8 | 110 | M12X1 | M4 |
| SI-32 | 57.7 | 41 | 16 | 10 | M12X1 | M4 |

| NPN | | | | | | |
|--------|------|----|----|-----|-------|----|
| TYPE | A | B | C | D | E | F |
| SI-20N | 42.2 | 26 | 8 | 110 | M12X1 | M4 |
| SI-32N | 57.7 | 41 | 16 | 10 | M12X1 | M4 |



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3 SHOVELS

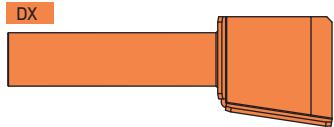
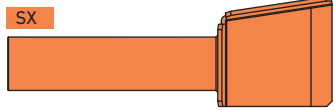
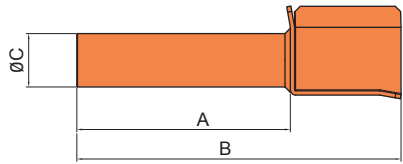
- Shovel
- Sheet Detector



SHOVELS - Shovel

Stamping

PAL-25-100-...



| | Weight (kg) |
|---------------|-------------|
| PAL-25-100-DX | 0.23 |
| PAL-25-100-SX | 0.23 |

■ Material: F-114

Example of application



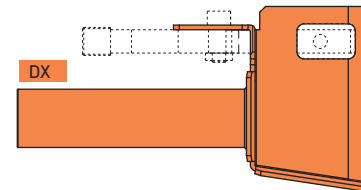
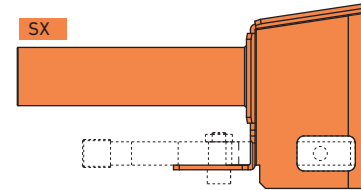
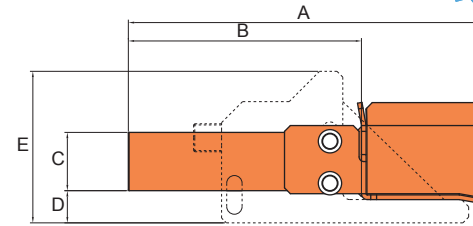
| TYPE | A | B | ØC |
|---------------|-----|-----|----|
| PAL-25-100-DX | 100 | 152 | 25 |
| PAL-25-100-SX | 100 | 152 | 25 |

Stamping



SHOVELS - Shovel

PAL-25-100-OPL-...

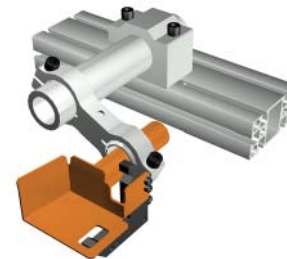


| | Weight (kg) |
|-------------------|-------------|
| PAL-25-100-OPL-DX | 0,376 |
| PAL-25-100-OPL-SX | 0,376 |

► Sensor not included

■ Material: F-114

Examples of applications

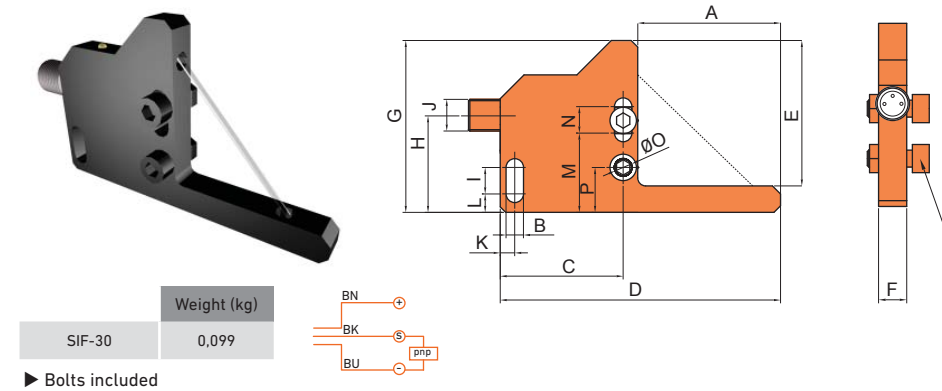
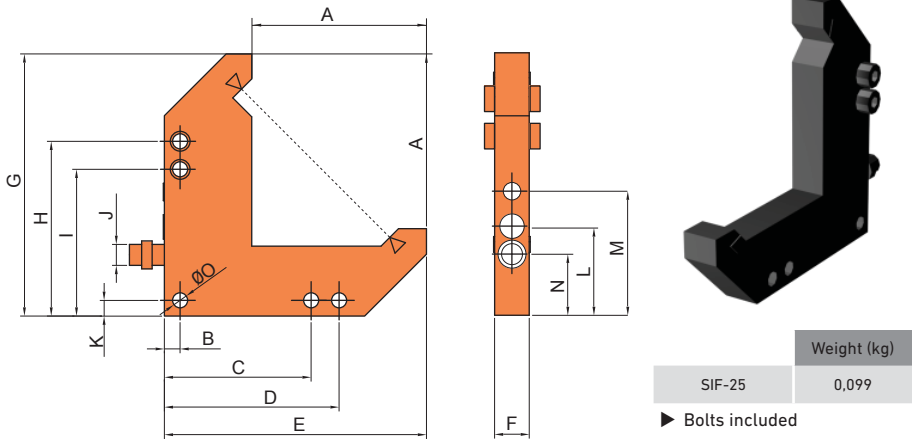


| TYPE | A | B | ØC | D | E |
|-------------------|-----|-----|----|----|----|
| PAL-25-100-OPL-DX | 152 | 100 | 25 | 30 | 75 |
| PAL-25-100-OPL-SX | 152 | 100 | 25 | 30 | 75 |

SHOVELS - Sheet Detector

Stamping

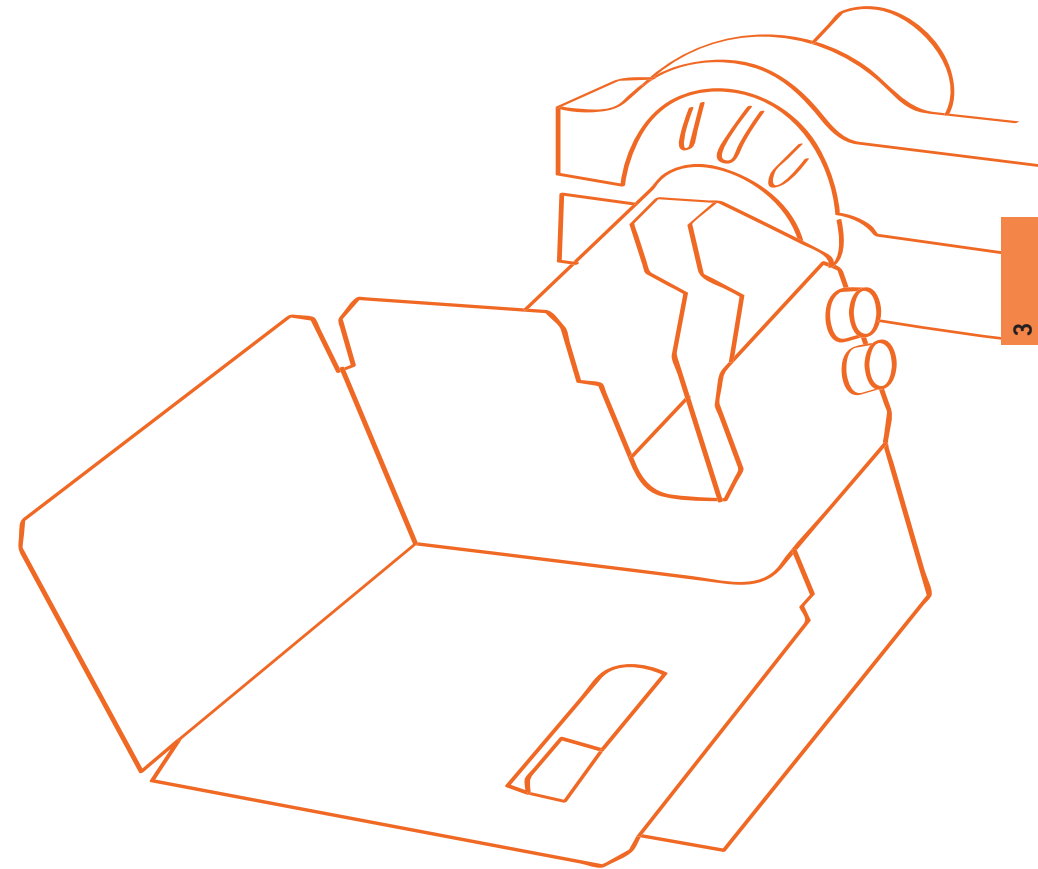
SIF-25



Examples of applications



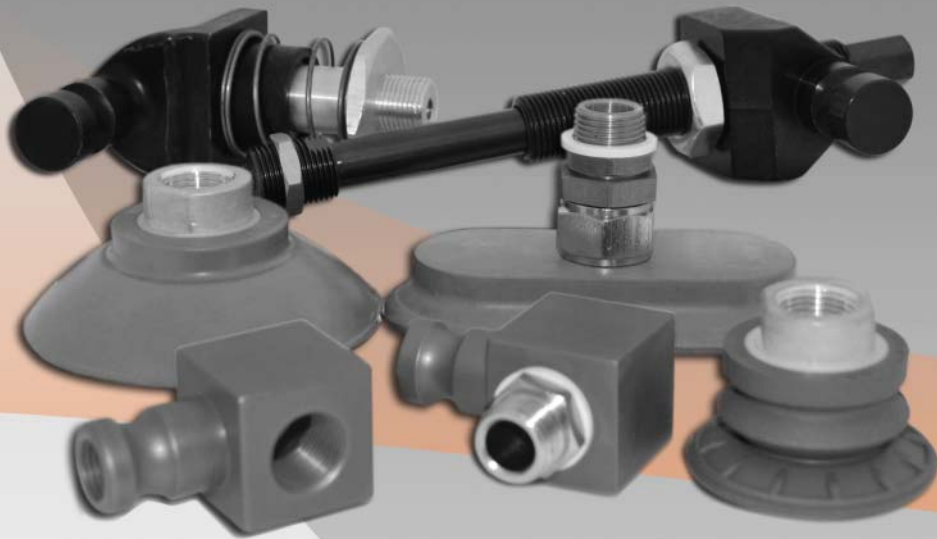
| TYPE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | Ø0 | P |
|--------|----|-----|------|-----|----|----|----|------|----|-------|-----|------|----|------|-----|----|
| SIF-25 | 50 | 4.5 | 42 | 50 | 75 | 10 | 73 | 50 | 42 | M8X1 | 4.5 | 17.5 | 25 | 35.5 | 4.3 | |
| SIF-30 | 54 | 6.6 | 46.5 | 106 | 55 | 10 | 65 | 36.5 | 10 | M12X1 | 5.5 | 10 | 30 | 20 | 6.6 | 17 |



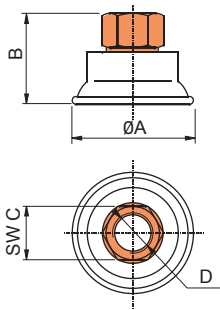
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4 SUCTION PADS

- Round Suction Pad
- Oval Suction Pad
- Spring Plunger
- Suction Pad Connection



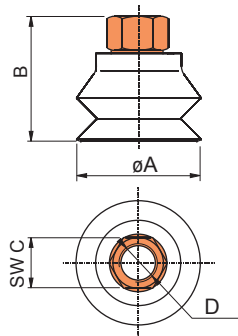
FLAT SUCTION PAD (ROUND) MVRP-...



| TYPE | ØA | B | C | D |
|--|------|------|----|----------|
| STANDARD NBR 60 | | | | |
| MVRP-30 | 32 | 20 | 17 | G1/4"-HE |
| MVRP-40 | 42 | 22 | 17 | G1/4"-HE |
| MVRP-50 | 52 | 28 | 22 | G3/2"-HE |
| MVRP-60 | 63 | 31 | 22 | G3/8"-HE |
| MVRP-80 | 83 | 35 | 22 | G3/8"-HE |
| MVRP-100 | 103 | 36 | 22 | G3/8"-HE |
| MVRP-125 | 128 | 43 | 22 | G3/8"-HE |
| HIGH RESISTANCE TO WEAR | | | | |
| MVRP-15-VK | 14.5 | 25.5 | 14 | G1/8"-HE |
| MVRP-30-VK | 30 | 29 | 14 | G1/8"-HE |
| MVRP-50-VK | 50 | 32 | 17 | G1/4"-HE |
| MVRP-60-VK | 60 | 33.5 | 17 | G1/4"-HE |
| MVRP-80-VK | 80 | 40 | 22 | G1/4"-HE |
| MVRP-95-VK | 95 | 40 | 22 | G1/4"-HE |
| CURVED OR VERY SENSITIVE SURFACES | | | | |
| MVRP-53-A | 53.5 | 30.5 | 22 | G3/8"-HE |
| MVRP-80-A | 79.5 | 45.5 | 22 | G3/8"-HE |

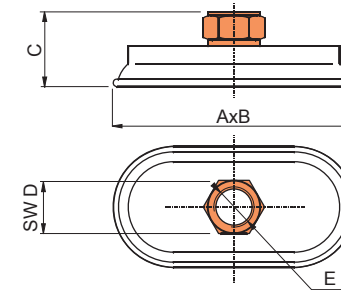
BELLOWS SUCTION PAD (ROUND) MVRF-...

| TYPE | ØA | B | C | D |
|--------------------------------|-----|------|-----|----------|
| STANDARD NBR 60 | | | | |
| MVRF-22 | 21 | 25 | 16 | G1/4"-HE |
| MVRF-30 | 32 | 28 | 17 | G1/4"-HE |
| MVRF-40 | 42 | 29 | 17 | G1/4"-HE |
| MVRF-50 | 52 | 37 | 22 | G3/8"-HE |
| MVRF-60 | 63 | 41.5 | 22 | G3/8"-HE |
| MVRF-80 | 83 | 50 | 22 | G3/8"-HE |
| MVRF-100 | 103 | 57 | 22 | G3/8"-HE |
| MVRF-125 | 128 | 68 | 22 | G3/8"-HE |
| HIGH RESISTANCE TO WEAR | | | | |
| MVRF-30-VK | 29 | 42 | 17 | G1/4"-HE |
| MVRF-40-VK | 38 | 41 | 17 | G1/4"-HE |
| MVRF-50-VK | 47 | 47.5 | 17 | G1/4"-HE |
| MVRF-60-VK | 59 | 49 | 17W | G1/4"-HE |
| MVRF-85-VK | 84 | 62 | 17 | G1/4"-HE |
| MVRF-110-VK | 110 | 69 | | G1/2"-HE |



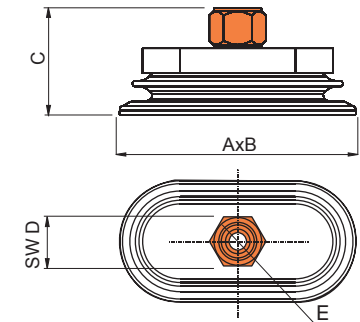
Misati reserves the right to modify any characteristics of this catalogue. Check the last stage of information in www.misati.com

FLAT SUCTION PAD (OVAL) MVOP-...



| TYPE | AxB | C | D | E |
|--|-----------|------|----|----------|
| STANDARD NBR 60 | | | | |
| MVOP-16X50 | 16X50 | 33 | 17 | G1/4"-HE |
| MVOP-23X60 | 26X62 | 26 | 17 | G1/4"-HE |
| MVOP-30X90 | 32X92 | 26 | 17 | G1/4"-HE |
| MVOP-40X80 | 40X82 | 28 | 17 | G1/4"-HE |
| MVOP-50X100 | 50X102 | 31 | 22 | G3/8"-HE |
| MVOP-60X120 | 60X123 | 33 | 22 | G3/8"-HE |
| MVOP-70X140 | 70X143 | 34 | 22 | G3/8"-HE |
| CURVED OR VERY SENSITIVE SURFACES | | | | |
| MVOP-20X60-A | 21.5X61.5 | 29 | 17 | G1/4"-HE |
| MVOP-30X80-A | 31.3X81.3 | 32.5 | 22 | G3/8"-HE |
| MVOP-40X95-A | 41.3X96.5 | 35.5 | 22 | G3/8"-HE |

BELLOWS SUCTION PAD (OVAL) MVOF-...



| TYPE | AxB | C | D | E |
|------------------------|--------|------|----|----------|
| STANDARD NBR 60 | | | | |
| MVOF-30X60 | 32X62 | 34.5 | 17 | G1/4"-HE |
| MVOF-40X80 | 42X82 | 37.2 | 17 | G1/4"-HE |
| MVOF-55X110 | 57X112 | 43.5 | 22 | G3/8"-HE |
| MVOF-70X140 | 72X143 | 47.5 | 22 | G3/8"-HE |

■ Accessories related to Suction Pads:

- Suction Pad Connection p. 4-06
- Spring Plunger p. 4-05

MOUNTINGS FOR TRANSFER:

- T-Mounting pp. 7-07 to 7-10
- Swivel Bracket..... pp. 7-13 to 7-14

MOUNTINGS FOR GRIPS:

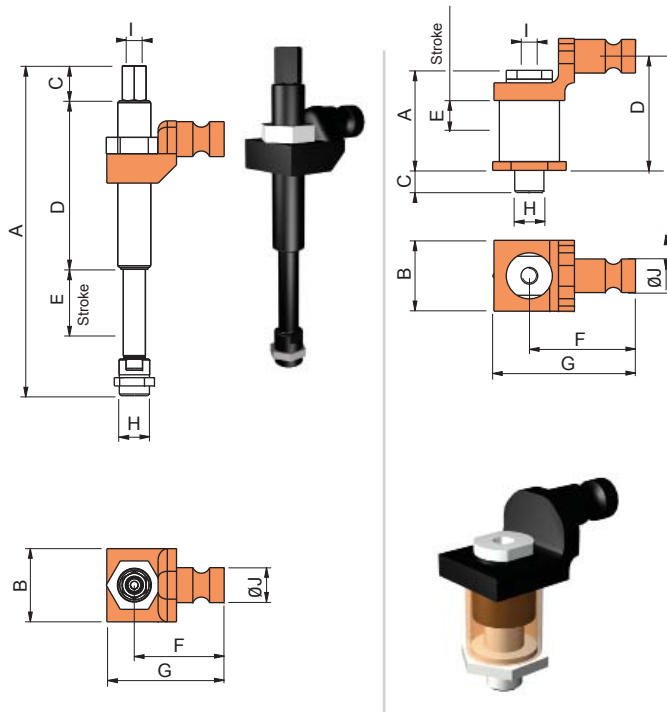
- T-Mounting pp. 7-28 to 7-30
- Swivel Bracket..... pp. 7-33 to 7-34

Misati reserves the right to modify any characteristics of this catalogue. Check the last stage of information in www.misati.com

SUCTION PADS - Spring Plunger

Stamping

FSTI-... HTS-...



| | Weight (kg) |
|------------|-------------|
| FSTI-38 | 0.29 |
| FSTI-38-BG | 0.30 |
| FSTI-14 | 0.29 |
| FSTI-14-BG | 0.30 |
| HTS-38 | 0.16 |
| HTS-14 | 0.16 |

- ▶ Bolts included
 - **Material:** duraluminium
 - **BG:** rotation lock of the suction pad
- Stroke = Standard

Examples of applications

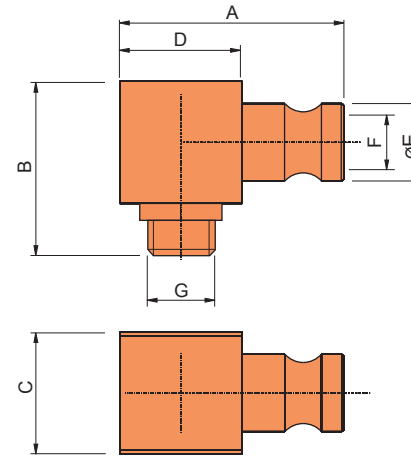
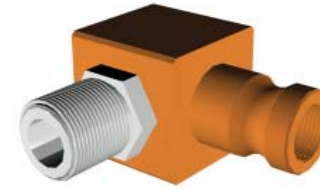


| TYPE | A | B | C | D | E | F | G | H | I | ØJ |
|------------|-----|----|----|----|----|----|----|--------|--------|----|
| FSTI-38 | 188 | 40 | 19 | 91 | 50 | 49 | 64 | 3/8-MA | 1/8-HE | 19 |
| FSTI-38-BG | 188 | 40 | 19 | 91 | 50 | 49 | 64 | 3/8-MA | 1/8-HE | 19 |
| FSTI-14 | 188 | 40 | 19 | 91 | 50 | 49 | 64 | 1/4-MA | 1/8-HE | 19 |
| FSTI-14-BG | 188 | 40 | 19 | 91 | 50 | 49 | 64 | 1/4-MA | 1/8-HE | 19 |
| HTS-38 | 57 | 40 | 12 | 67 | 15 | 60 | 80 | 3/8-MA | 1/4-HE | 19 |
| HTS-14 | 57 | 40 | 12 | 67 | 15 | 60 | 80 | 1/4-MA | 1/4-HE | 19 |

SUCTION PADS - Suction Pad Connection

Stamping

SATKVR-... SATKVO-...



| | Weight (kg) |
|-------------|-------------|
| SATKVR-3814 | 0.10 |
| SATKVR-1214 | 0.10 |
| SATKVR-1414 | 0.11 |
| SATKVR-1814 | 0.10 |
| SATKVO-3814 | 0.10 |
| SATKVO-1414 | 0.11 |

- ▶ Bolts included
- **Accessories related to Suction Pads:**
Suction Pad pp. 4-03 to 4-04
- MOUNTINGS FOR TRANSFER:**
T-Mounting pp. 7-07 to 7-10
Swivel Bracket..... pp. 7-13 to 7-14
- MOUNTINGS FOR GRIPS:**
T-Mounting pp. 7-28 to 7-30
Swivel Bracket..... pp. 7-33 to 7-34
- **Material:** duraluminium

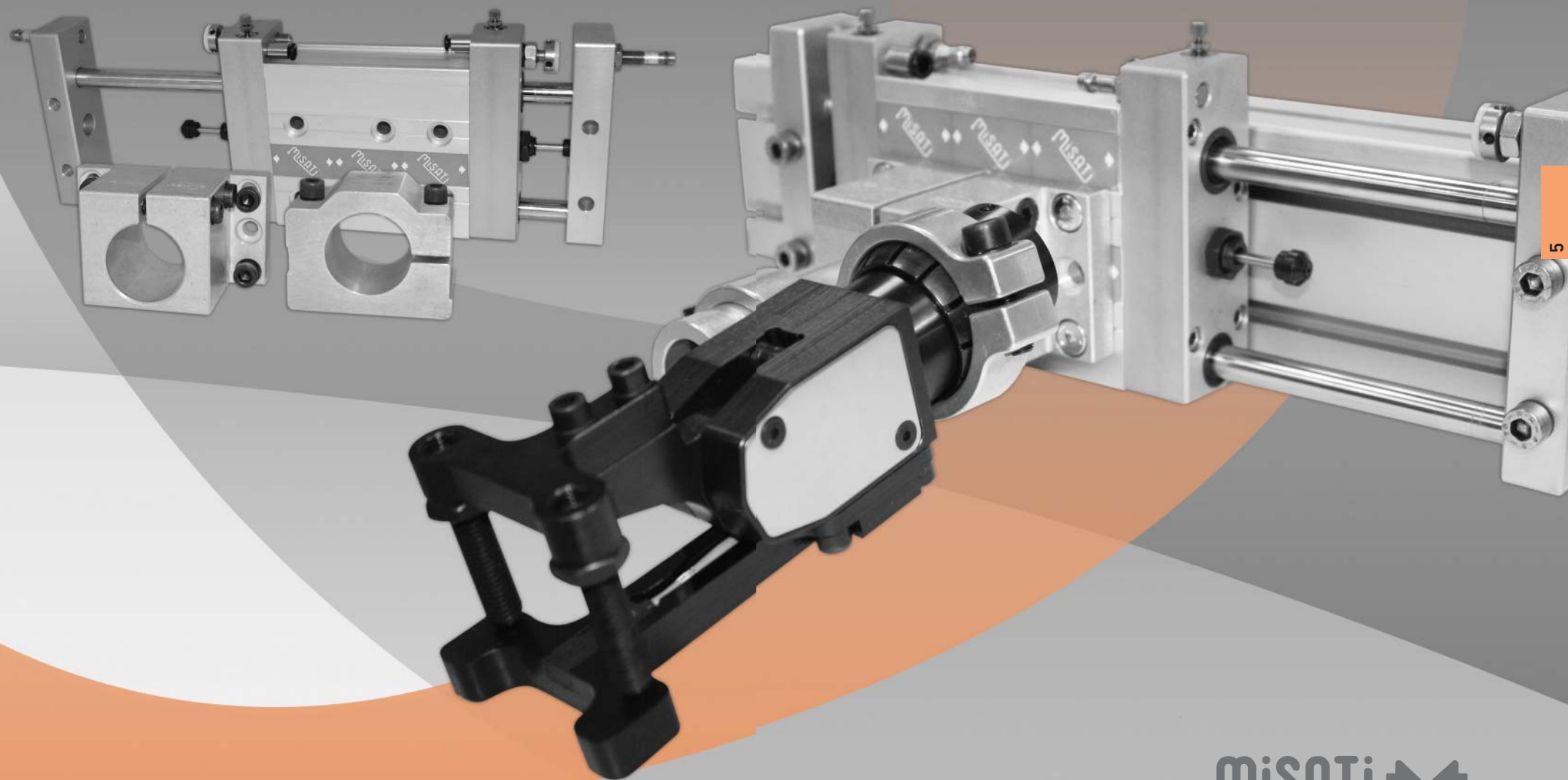
Examples of applications

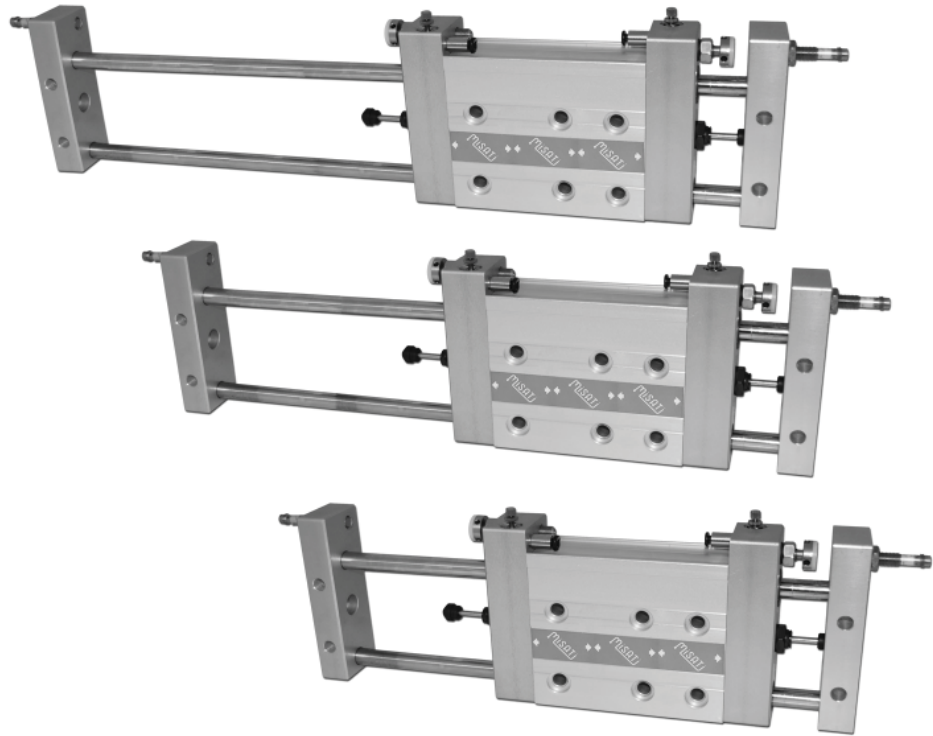


| TYPE | A | B | C | D | ØE | F | G | TYPE OF SUCTION PAD |
|-------------|----|----|----|----|----|-------|-------|---------------------|
| SATKVR-3814 | 55 | 46 | 30 | 30 | 19 | 1/4"G | 3/8"G | Round |
| SATKVR-1214 | 55 | 46 | 30 | 30 | 19 | 1/4"G | 1/2"G | Round |
| SATKVR-1414 | 55 | 46 | 30 | 30 | 19 | 1/4"G | 1/4"G | Round |
| SATKVR-1814 | 55 | 46 | 30 | 30 | 19 | 1/4"G | 1/8"G | Round |
| SATKVO-3814 | 55 | 53 | 30 | 30 | 19 | 1/4"G | 3/8"G | Oval |
| SATKVO-1414 | 55 | 53 | 30 | 30 | 19 | 1/4"G | 1/4"G | Oval |

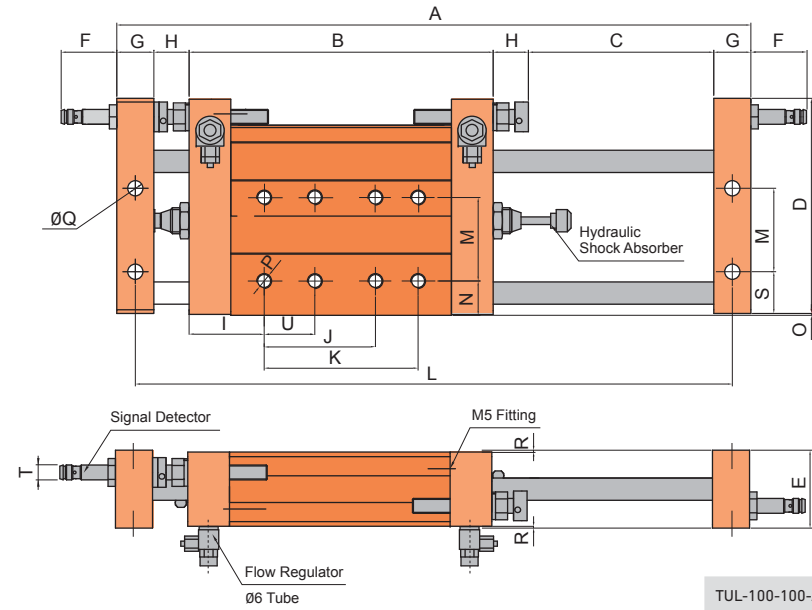
5 LINEAR UNITS

- Linear Unit
- Mounting for the Linear Unit





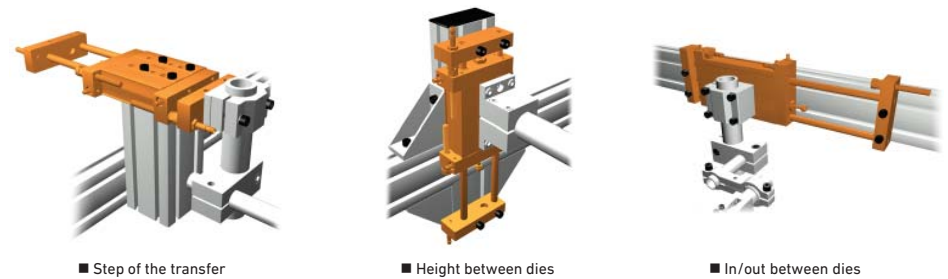
| TYPE | THRUST FORCE | PISTON | OPERATING SPEED | LOAD | PRECISION STOP |
|-----------------|--------------|--------|-----------------|--------------|----------------|
| TUL-100-100-A-D | 25 daN | Ø32 | 80 to 600 mm/s | 0.1 to 15 kg | 0.01 mm |
| TUL-100-150-A-D | 25 daN | Ø32 | 80 to 600 mm/s | 0.1 to 15 kg | 0.01 mm |
| TUL-100-200-A-D | 25 daN | Ø32 | 80 to 600 mm/s | 0.1 to 15 kg | 0.01 mm |



| | Weight (kg) |
|-----------------|-------------|
| TUL-100-100-A-D | 3.250 |
| TUL-100-150-A-D | 3.800 |
| TUL-100-200-A-D | 4.350 |

- ▶ Cushioning included
- ▶ Detector included
- ▶ Flow Regulator included

Examples of applications

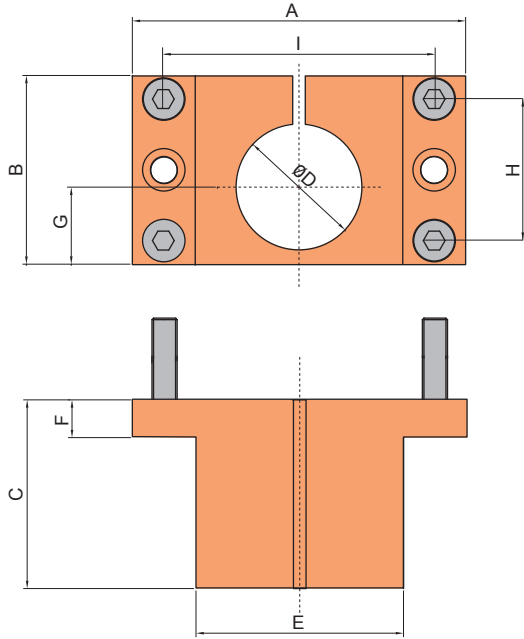


| TYPE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | ØQ | R | S | T | U |
|-----------------|-----|-----|-----|-------|----|----|----|----|----|----|----|-----|----|------|---|----|-----|---|------|------|----|
| TUL-100-100-A-D | 340 | 174 | 100 | 143.5 | 46 | 30 | 19 | 14 | 44 | 60 | 86 | 321 | 45 | 43.5 | 2 | M8 | 8.2 | 1 | 34.5 | M8X1 | 30 |
| TUL-100-150-A-D | 440 | 224 | 150 | 143.5 | 46 | 30 | 19 | 14 | 44 | 60 | 86 | 421 | 45 | 43.5 | 2 | M8 | 8.2 | 1 | 34.5 | M8X1 | 30 |
| TUL-100-200-A-D | 540 | 274 | 200 | 143.5 | 46 | 30 | 19 | 14 | 44 | 60 | 86 | 521 | 45 | 43.5 | 2 | M8 | 8.2 | 1 | 34.5 | M8X1 | 30 |

LINEAR UNITS - Mounting for the Linear Unit

Stamping

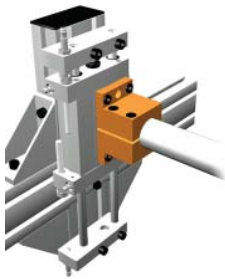
SASB...



| | Weight (kg) |
|---------------|-------------|
| SASB240-F-TUL | 0.61 |

- ▶ Bolts included
- Material: duraluminium

Example of application

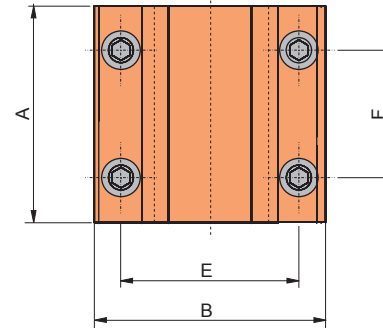
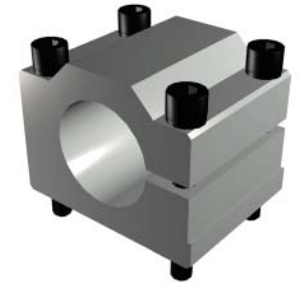
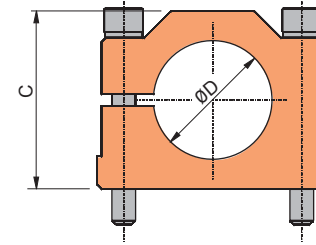


| TYPE | A | B | C | ØD | E | F | G | H | I |
|---------------|-----|----|----|-----|----|----|------|----|----|
| SASB240-F-TUL | 106 | 60 | 60 | Ø40 | 66 | 12 | 24.5 | 45 | 86 |

LINEAR UNITS - Mounting for the Linear Unit

Stamping

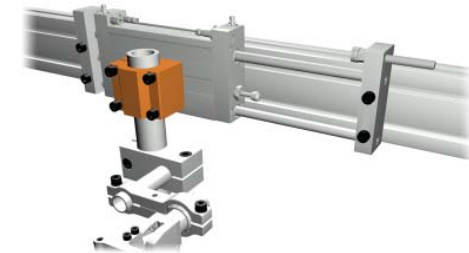
SB2...



| | Weight (kg) |
|---------------|-------------|
| SB2-40-60-TUL | 0.75 |

- ▶ Bolts included
- Material: duraluminium

Example of application



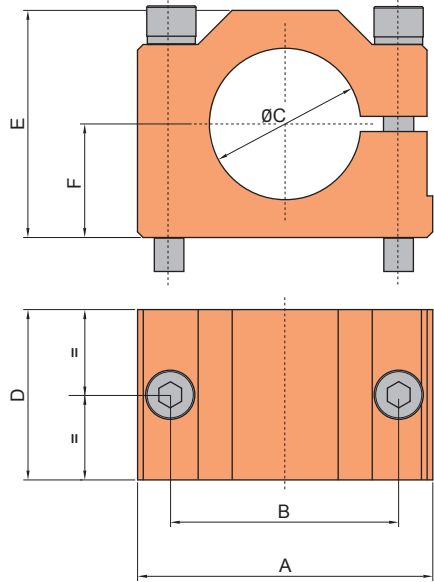
| TYPE | A | B | C | ØD | E | F |
|---------------|----|----|----|----|----|----|
| SB2-40-60-TUL | 60 | 78 | 60 | 40 | 60 | 45 |

LINEAR UNITS - Mounting for the Linear Unit

SB2-...



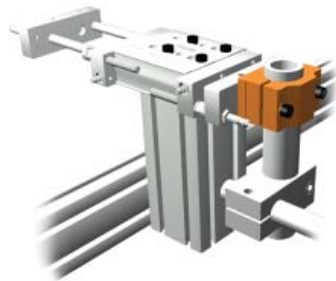
Stamping



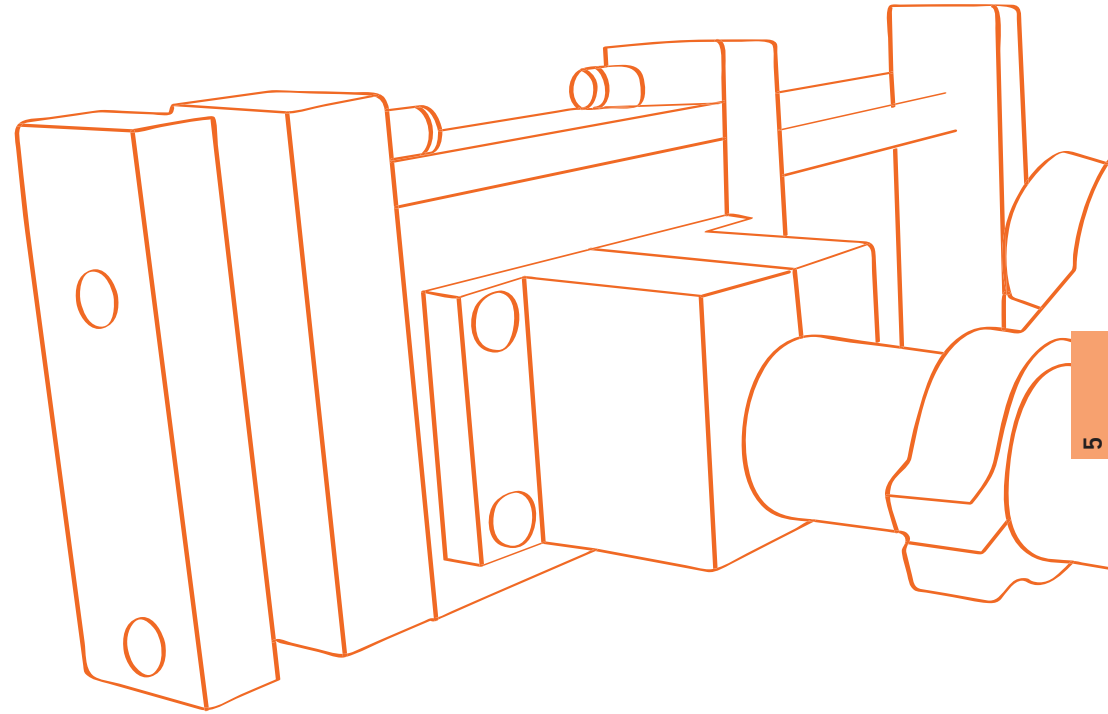
| | Weight (kg) |
|--------------|-------------|
| SB2-40-N-TUL | 0.43 |

► Bolts included

Example of application



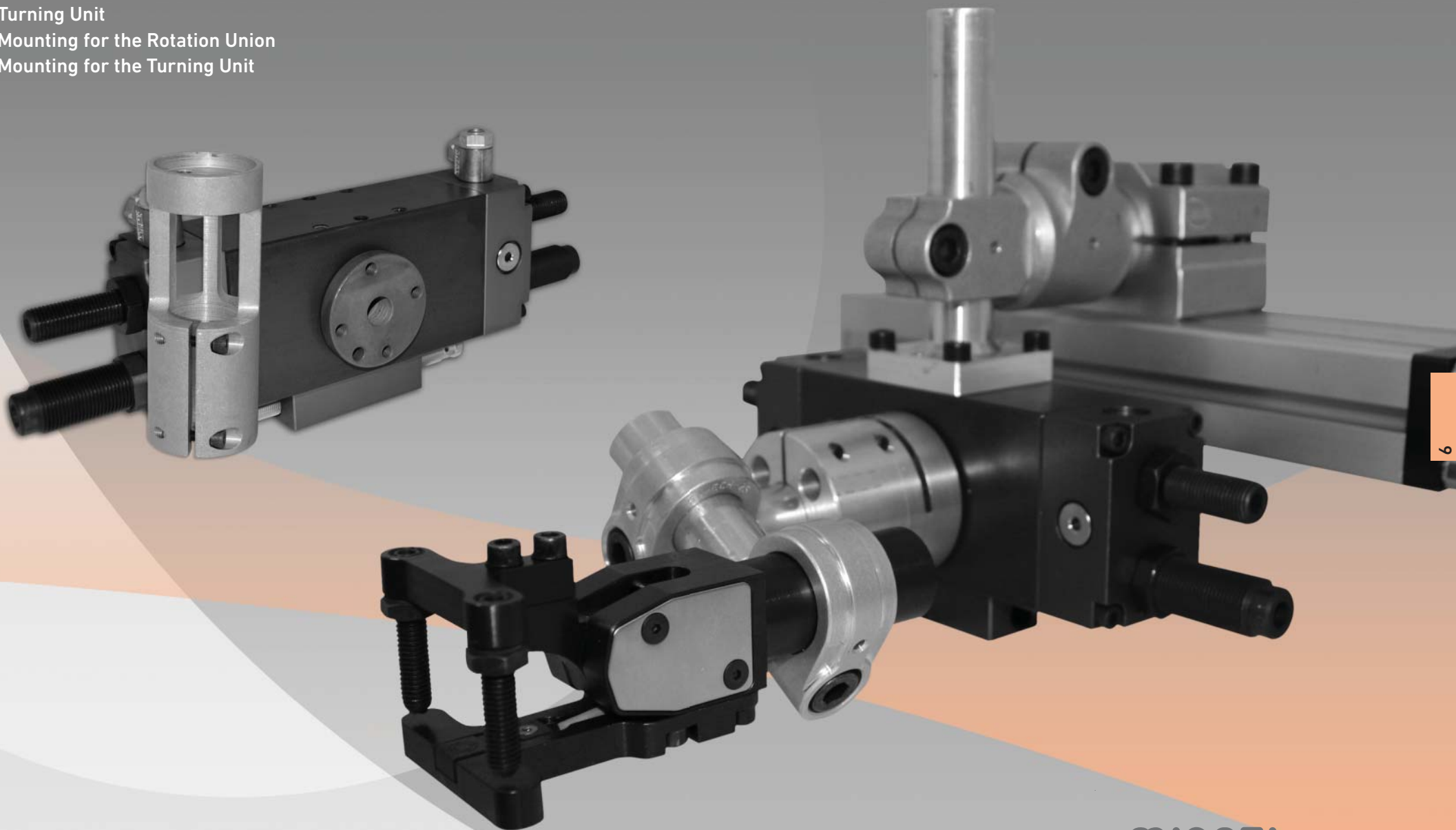
| TYPE | A | B | ØC | D | E | F |
|--------------|----|----|----|----|----|----|
| SB2-40-N-TUL | 78 | 56 | 40 | 45 | 60 | 30 |

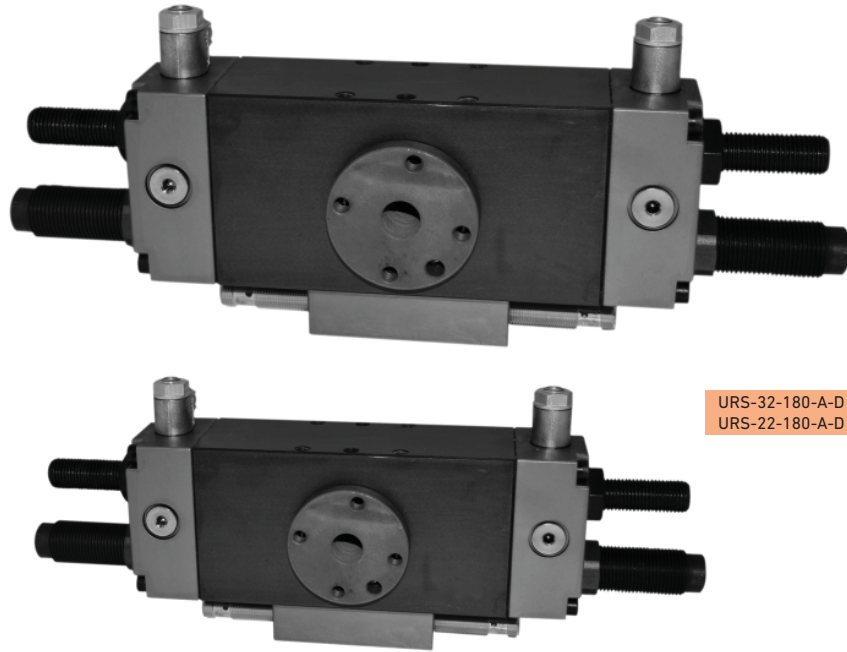


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6 TURNING UNITS

- Turning Unit
- Mounting for the Rotation Union
- Mounting for the Turning Unit

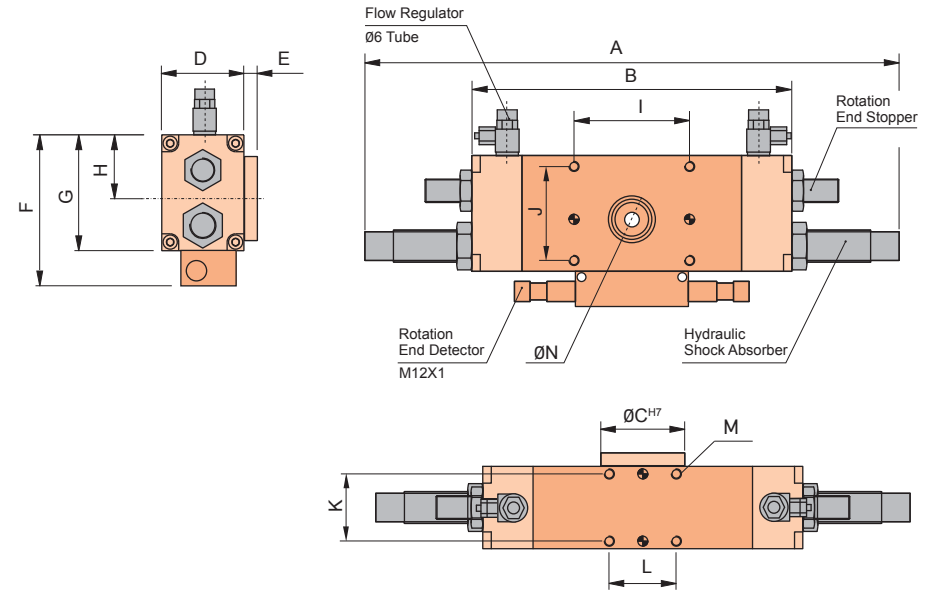




URS-32-180-A-D
URS-22-180-A-D

- **Operating pressure:** 6 bar (maximum: 10 bar)
- **Mechanism:** double rack & pinion
- **Material:** hardened steel & duraluminium

| TYPE | TURNING MOMENT | ROTATION ANGLE | PRECISION STOP (r=40) | SPEED | PISTON | MAXIMUM LOAD | WEIGHT |
|----------------|----------------|----------------|-----------------------|--------------|--------|--------------|---------|
| URS-22-180-A-D | 1.5 Nm | 0 to 182° | ± 0.02 mm | 180° / 0.4 s | Ø25 | 3 kg | 1.40 kg |
| URS-32-180-A-D | 5 Nm | 0 to 182° | ± 0.02 mm | 180° / 0.4 s | Ø32 | 15 kg | 2.00 kg |

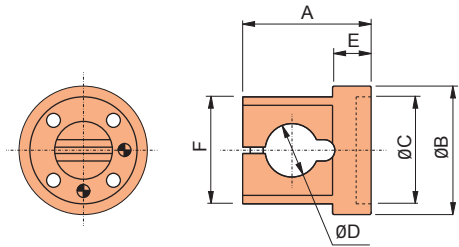


- ▶ Cushioning included
- ▶ Detector included
- ▶ Flow Regulator included

Examples of applications



| TYPE | A | B | ØC | D | E | F | G | H | I | J | K | L | M | ØN |
|----------------|-----|-----|----|----|-----|----|----|----|----|----|----|----|----|----|
| URS-22-180-A-D | 260 | 160 | 40 | 39 | 7.5 | 74 | 53 | 28 | 60 | 45 | 30 | 40 | M5 | 11 |
| URS-32-180-A-D | 319 | 191 | 50 | 49 | 8 | 90 | 69 | 38 | 70 | 57 | 40 | 40 | M6 | 13 |



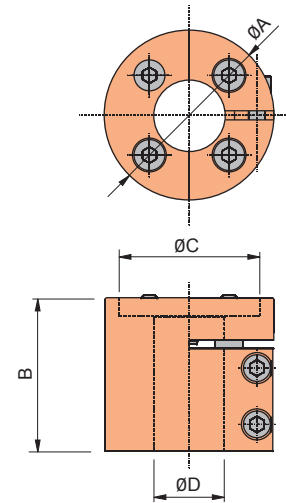
| | Weight (kg) |
|----------------|-------------|
| UNURS-22-25-90 | 0.20 |
| UNURS-32-25-90 | 0.25 |

- ▶ Bolts included
- Material: duraluminium

Example of application



| TYPE | A | ØB | ØC | ØD | E | F |
|----------------|----|----|----|----|----|-------|
| UNURS-22-25-90 | 50 | 45 | 40 | 25 | 18 | 34X34 |
| UNURS-32-25-90 | 60 | 60 | 50 | 25 | 18 | 42X50 |



| | Weight (kg) |
|-------------|-------------|
| UNURS-22-25 | 0.25 |
| UNURS-32-25 | 0.30 |

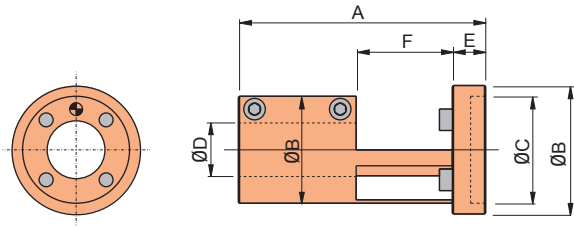
- ▶ Bolts included
- Material: duraluminium

Example of application



| TYPE | ØA | B | ØC | ØD |
|-------------|----|----|----|----|
| UNURS-22-25 | 50 | 55 | 40 | 25 |
| UNURS-32-25 | 60 | 55 | 50 | 25 |

UNURS-...



| | Weight (kg) |
|-------------|-------------|
| UNURS-22-11 | 0.35 |
| UNURS-32-11 | 0.41 |

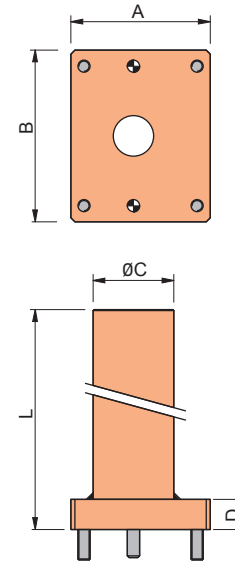
- ▶ Bolts included
- Material: duraluminium

Example of application



| TYPE | A | ØB | ØC | ØD | E | F |
|-------------|-------|----|----|----|------|----|
| UNURS-22-11 | 115.5 | 45 | 40 | 28 | 15.5 | 45 |
| UNURS-32-11 | 115.5 | 60 | 50 | 28 | 15.5 | 45 |

PURS-...



| | Weight (kg) |
|------------------|-------------|
| PURS-22-PAT-25-L | 0.20 |
| PURS-22-PAT-40-L | 0.40 |
| PURS-32-PAT-25-L | 0.25 |
| PURS-32-PAT-40-L | 0.53 |

- ▶ Bolts included
- Material: duraluminium

Examples of applications



| TYPE | A | B | L | ØC | D |
|------------------|----|----|-------------|----|----|
| PURS-22-PAT-25-L | 39 | 50 | 100 ... 200 | 25 | 10 |
| PURS-22-PAT-40-L | 53 | 70 | 100 ... 200 | 40 | 10 |
| PURS-32-PAT-25-L | 49 | 49 | 100 ... 200 | 25 | 12 |
| PURS-32-PAT-40-L | 69 | 85 | 100 ... 200 | 40 | 15 |

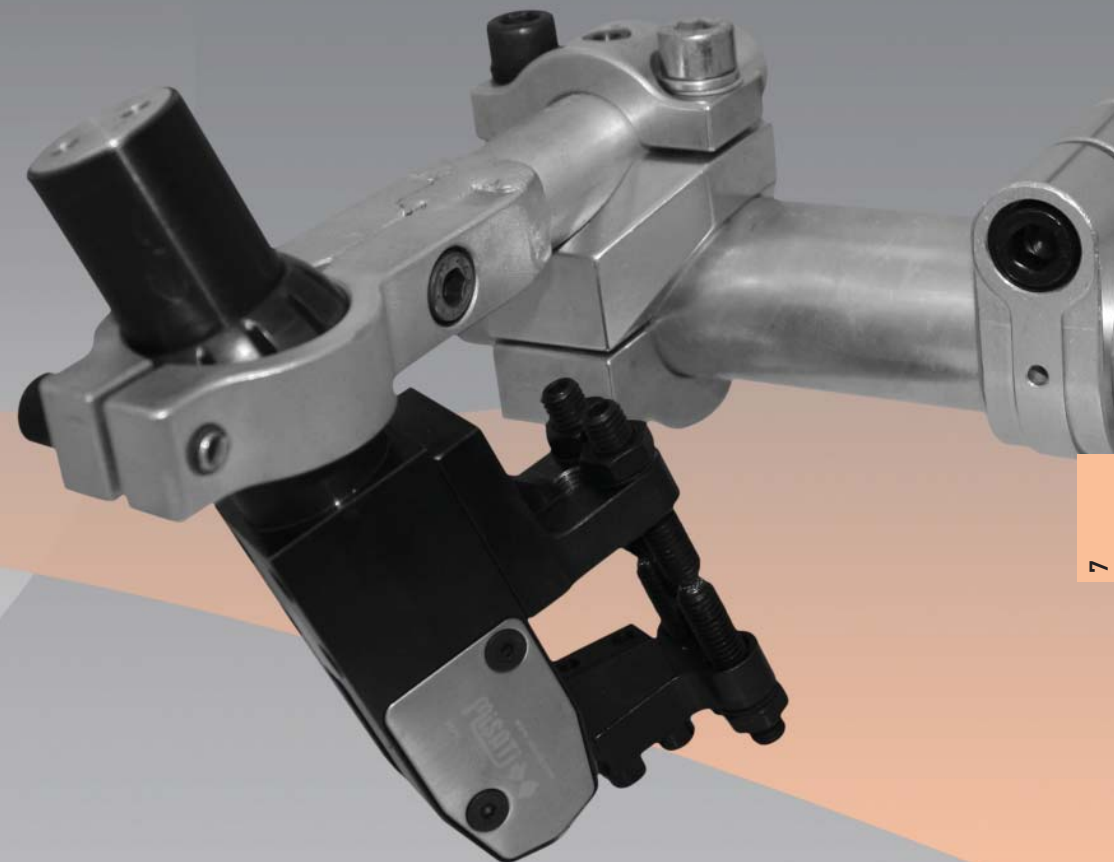
7 MOUNTINGS

Mountings for Transfer

- Parallel Mounting
- T-Mounting
- Cross Mounting
- Swivel Bracket
- Profile Mounting
- Tube & Profile
- Pneumatic Distributor
- Profile Connector Plate

Mountings for Grips

- Parallel Mounting
- T-Mounting
- Cross-Mounting
- Swivel Bracket
- Elbow & Cross Boom Adapter
- Robot Plate
- Bayonet
- Concentric Ring for Robots
- Plate Mounting
- Plate for Components
- Sensor Mounting
- Tube



MOUNTINGS FOR TRANSFER

Stamping

PARALLEL MOUNTING 7-04



SAPKO-... SAPKR-... SAPKA-...

T-MOUNTING 7-07



SAPKO-...-0 SATK-... SAES-...

CROSS MOUNTING 7-11



SAT-... SATKA-...

SWIVEL BRACKET 7-13



SAED-...

PROFILE MOUNTING 7-15



SB2-... SBS-... SASB-...

TUBE & PROFILE 7-17



SAPAT-... SABT1-... P-...
SATCZ-... SAPAB-...

PNEUMATIC DISTRIBUTOR 7-19



F-459-...

PROFILE CONNECTOR PLATE 7-20



F-4591

PROFILE MOUNTING 7-21



SB-...

SP-...

SV-...

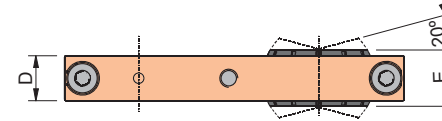
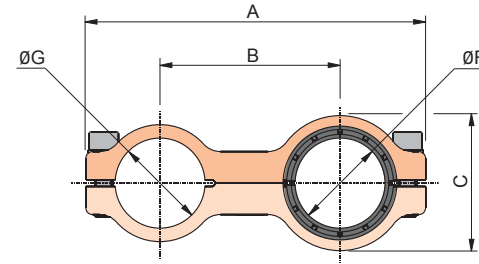
■ Mountings require the necessary adjustments, degrees of freedom and rigidity when making up an assembly.

Misati reserves the right to modify any characteristics of this catalogue. Check the last stage of information in www.misati.com

Stamping

MOUNTINGS FOR TRANSFER - Swivel Parallel Mounting

SAPKO-...



| | Weight (kg) |
|-------------|-------------|
| SAPKO-25-25 | 0.23 |
| SAPKO-25-30 | 0.21 |
| SAPKO-25-40 | 0.19 |
| SAPKO-28-25 | 0.22 |
| SAPKO-28-30 | 0.20 |
| SAPKO-28-40 | 0.21 |
| SAPKO-30-30 | 0.25 |
| SAPKO-40-25 | 0.22 |
| SAPKO-40-30 | 0.20 |
| SAPKO-40-40 | 0.19 |

- ▶ Bolts included
- **Material:** duraluminium & hardened steel

Examples of applications

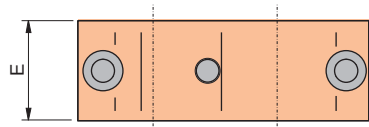
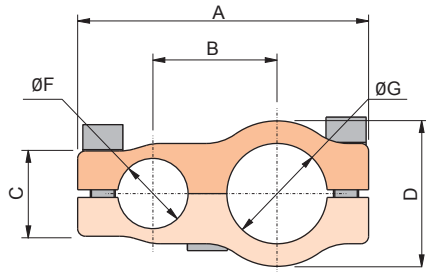


| TYPE | A | B | C | D | E | ØF | ØG |
|-------------|-----|----|----|----|----|----|----|
| SAPKO-25-25 | 139 | 80 | 48 | 20 | 25 | 25 | 25 |
| SAPKO-25-30 | 139 | 80 | 52 | 20 | 25 | 25 | 30 |
| SAPKO-25-40 | 146 | 80 | 52 | 20 | 25 | 25 | 40 |
| SAPKO-28-25 | 139 | 80 | 48 | 20 | 25 | 28 | 25 |
| SAPKO-28-30 | 146 | 80 | 52 | 20 | 25 | 28 | 30 |

| TYPE | A | B | C | D | E | ØF | ØG |
|-------------|-----|----|----|----|----|----|----|
| SAPKO-28-40 | 146 | 80 | 52 | 20 | 25 | 28 | 40 |
| SAPKO-30-30 | 146 | 80 | 52 | 20 | 25 | 30 | 30 |
| SAPKO-40-25 | 146 | 80 | 52 | 20 | 25 | 40 | 25 |
| SAPKO-40-30 | 151 | 80 | 50 | 20 | 25 | 40 | 30 |
| SAPKO-40-40 | 151 | 80 | 60 | 20 | 25 | 40 | 40 |

Misati reserves the right to modify any characteristics of this catalogue. Check the last stage of information in www.misati.com

SAPKR-...



| | Weight (kg) |
|-------------|-------------|
| SAPKR-25-25 | 0.37 |
| SAPKR-25-28 | 0.36 |
| SAPKR-25-40 | 0.43 |
| SAPKR-28-40 | 0.42 |
| SAPKR-40-40 | 0.47 |

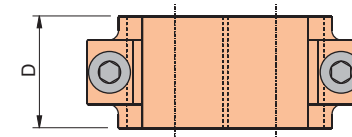
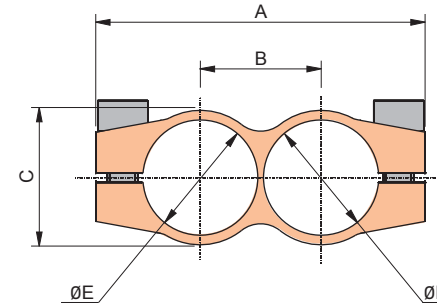
- ▶ Bolts included
- **Material:** duraluminium

Examples of applications



| TYPE | A | B | C | D | E | ØF | ØG |
|-------------|-----|------|----|----|----|----|----|
| SAPKR-25-25 | 104 | 43.5 | 34 | 40 | 40 | 25 | 25 |
| SAPKR-25-28 | 104 | 43.5 | 34 | 43 | 40 | 25 | 28 |
| SAPKR-25-40 | 116 | 49.5 | 34 | 58 | 40 | 25 | 40 |
| SAPKR-28-40 | 116 | 49.5 | 34 | 58 | 40 | 28 | 40 |
| SAPKR-40-40 | 130 | 60 | 39 | 58 | 40 | 40 | 40 |

SAPKA-...



| | Weight (kg) |
|-------------|-------------|
| SAPKA-25-30 | 0.28 |
| SAPKA-28-30 | 0.25 |
| SAPKA-30-30 | 0.22 |

- ▶ Bolts included
- **Material:** steel

Examples of applications

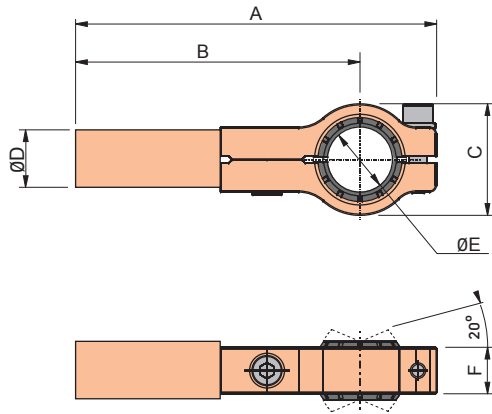


| TYPE | A | B | C | D | ØE | ØF |
|-------------|----|------|----|----|----|----|
| SAPKA-25-30 | 86 | 31.5 | 35 | 35 | 25 | 30 |
| SAPKA-28-30 | 86 | 31.5 | 35 | 35 | 28 | 30 |
| SAPKA-30-30 | 86 | 31.5 | 35 | 35 | 30 | 30 |

MOUNTINGS FOR TRANSFER - Swivel T-Mounting

Stamping

SAPKO-...-0



| | Weight (kg) |
|---------------|-------------|
| SAPKO-25-25-0 | 0.32 |
| SAPKO-28-25-0 | 0.34 |
| SAPKO-40-25-0 | 0.36 |

- ▶ Bolts included
- **Material:** hardened steel

Examples of applications

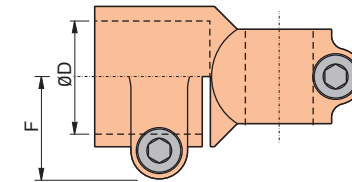
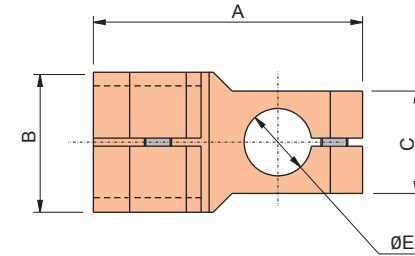


| TYPE | A | B | C | ØD | ØE | F |
|---------------|-----|-----|----|----|----|----|
| SAPKO-25-25-0 | 200 | 170 | 48 | 25 | 25 | 20 |
| SAPKO-28-25-0 | 200 | 170 | 48 | 25 | 28 | 20 |
| SAPKO-40-25-0 | 208 | 170 | 60 | 25 | 40 | 20 |

MOUNTINGS FOR TRANSFER - T-Mounting

Stamping

SATK-...



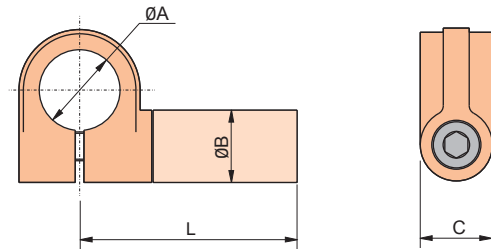
| | Weight (kg) |
|------------|-------------|
| SATK-25-25 | 0.25 |
| SATK-25-28 | 0.27 |
| SATK-25-40 | 0.42 |
| SATK-40-25 | 0.42 |
| SATK-40-28 | 0.41 |
| SATK-40-40 | 0.58 |

- ▶ Bolts included
- **Material:** duraluminium

Examples of applications



| TYPE | A | B | C | ØD | ØE | F |
|------------|-----|-----|----|----|----|----|
| SATK-25-25 | 88 | 38 | 38 | 25 | 25 | 30 |
| SATK-25-28 | 88 | 38 | 38 | 25 | 28 | 30 |
| SATK-25-40 | 102 | 38 | 50 | 25 | 40 | 30 |
| SATK-40-25 | 100 | ø52 | 38 | 40 | 25 | 38 |
| SATK-40-28 | 100 | ø52 | 38 | 40 | 28 | 38 |
| SATK-40-40 | 112 | ø52 | 52 | 40 | 40 | 38 |

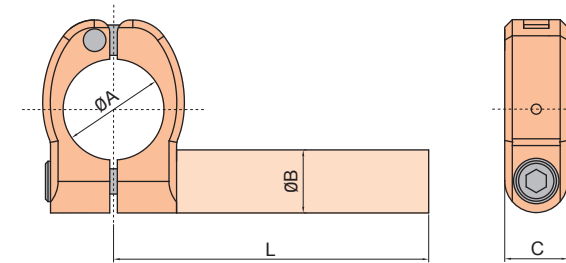


- ▶ Bolts included
- Material: duraluminium

Examples of applications



| TYPE | ØA | ØB | C | L |
|--------------|----|----|----|------------|
| SAES-25-19-L | 19 | 25 | 25 | 75 ... 400 |
| SAES-25-25-L | 25 | 25 | 25 | 75 ... 400 |
| SAES-25-28-L | 28 | 25 | 25 | 75 ... 400 |
| SAES-25-30-L | 30 | 25 | 25 | 75 ... 400 |
| SAES-25-40-L | 40 | 25 | 25 | 75 ... 400 |



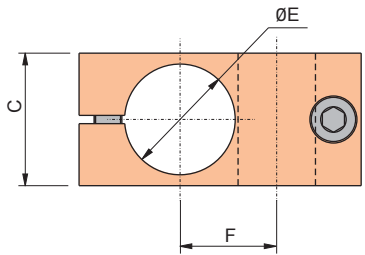
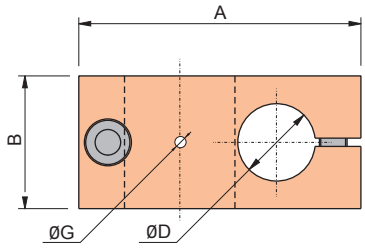
- ▶ Bolts included
- Material: duraluminium

Examples of applications



| TYPE | ØA | ØB | C | L |
|------------|----|----|----|----------------|
| SAES-19Z-L | 19 | 25 | 25 | 75,100 ... 400 |
| SAES-25Z-L | 25 | 25 | 25 | 75,100 ... 400 |
| SAES-28Z-L | 28 | 25 | 25 | 75,100 ... 400 |
| SAES-40Z-L | 40 | 25 | 25 | 75,100 ... 400 |

SAT-...



| | Weight (kg) |
|-----------|-------------|
| SAT-25-25 | 0.22 |
| SAT-25-28 | 0.21 |
| SAT-25-40 | 0.19 |
| SAT-28-40 | 0.19 |
| SAT-40-40 | 0.18 |

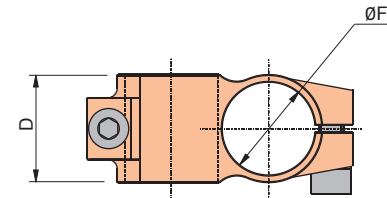
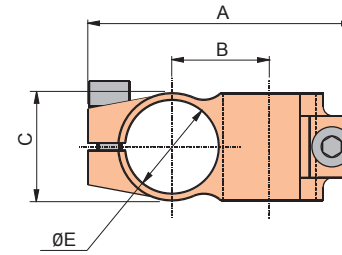
- ▶ Bolts included
- Material: duraluminium

Examples of applications



| TYPE | A | B | C | ØD | ØE | F | ØG |
|-----------|-----|----|----|----|----|----|----|
| SAT-25-25 | 90 | 35 | 35 | 25 | 25 | 27 | 4 |
| SAT-25-28 | 90 | 35 | 35 | 25 | 28 | 27 | 4 |
| SAT-25-40 | 102 | 48 | 48 | 25 | 40 | 35 | 4 |
| SAT-28-40 | 102 | 48 | 48 | 28 | 40 | 35 | 4 |
| SAT-40-40 | 115 | 48 | 48 | 40 | 40 | 42 | 4 |

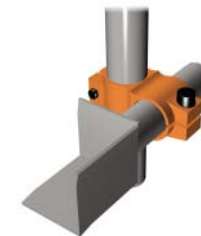
SATKA-...



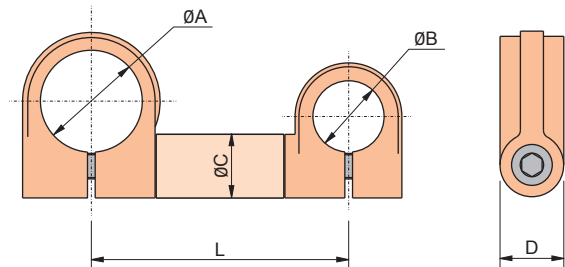
| | Weight (kg) |
|-------------|-------------|
| SATKA-25-30 | 0.28 |
| SATKA-28-30 | 0.25 |
| SATKA-30-30 | 0.22 |

- ▶ Bolts included
- Material: steel

Examples of applications



| TYPE | A | B | C | D | ØE | ØF |
|-------------|----|------|----|----|----|----|
| SATKA-25-30 | 86 | 31.5 | 35 | 35 | 25 | 30 |
| SATKA-28-30 | 86 | 31.5 | 35 | 35 | 28 | 30 |
| SATKA-30-30 | 86 | 31.5 | 35 | 35 | 30 | 30 |



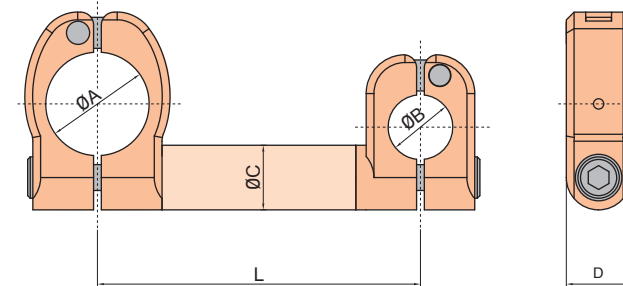
- ▶ Bolts included
- Material: duraluminium

Examples of applications



| TYPE | ØA | ØB | ØC | D | L |
|-----------------|----|----|----|----|-------------|
| SAED-25-25-19-L | 25 | 19 | 25 | 25 | 100 ... 400 |
| SAED-25-25-25-L | 25 | 25 | 25 | 25 | 100 ... 400 |
| SAED-25-25-28-L | 25 | 28 | 25 | 25 | 100 ... 400 |
| SAED-25-25-40-L | 25 | 40 | 25 | 25 | 100 ... 400 |
| SAED-25-30-19-L | 30 | 19 | 25 | 25 | 100 ... 400 |
| SAED-25-30-25-L | 30 | 25 | 25 | 25 | 100 ... 400 |
| SAED-25-30-28-L | 30 | 28 | 25 | 25 | 100 ... 400 |
| SAED-25-30-40-L | 30 | 40 | 25 | 25 | 100 ... 400 |
| SAED-25-40-19-L | 40 | 19 | 25 | 25 | 100 ... 400 |
| SAED-25-40-28-L | 40 | 28 | 25 | 25 | 100 ... 400 |
| SAED-25-40-40-L | 40 | 40 | 25 | 25 | 100 ... 400 |

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- ▶ Bolts included
- Material: duraluminium

Examples of applications



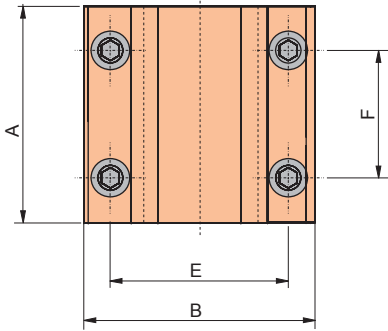
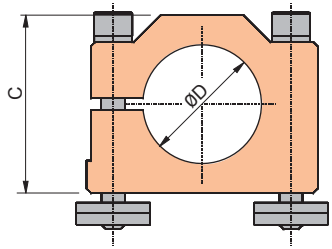
| TYPE | ØA | ØB | ØC | D | L |
|----------------|----|----|----|----|-------------|
| SAED-25Z-19Z-L | 25 | 19 | 25 | 25 | 100 ... 400 |
| SAED-25Z-25Z-L | 25 | 25 | 25 | 25 | 100 ... 400 |
| SAED-25Z-28Z-L | 25 | 28 | 25 | 25 | 100 ... 400 |
| SAED-25Z-40Z-L | 25 | 40 | 25 | 25 | 100 ... 400 |
| SAED-40Z-19Z-L | 40 | 19 | 25 | 25 | 100 ... 400 |
| SAED-40Z-28Z-L | 40 | 28 | 25 | 25 | 100 ... 400 |
| SAED-40Z-40Z-L | 40 | 40 | 25 | 25 | 100 ... 400 |

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MOUNTINGS FOR TRANSFER - Profile Mounting

Stamping

SB2-...



| | Weight (kg) |
|-----------|-------------|
| SB2-25-N | 0.55 |
| SB2-40-N | 0.43 |
| SB2-25-60 | 0.90 |
| SB2-40-60 | 0.75 |

- ▶ Bolts included
- Material: duraluminium

Examples of applications

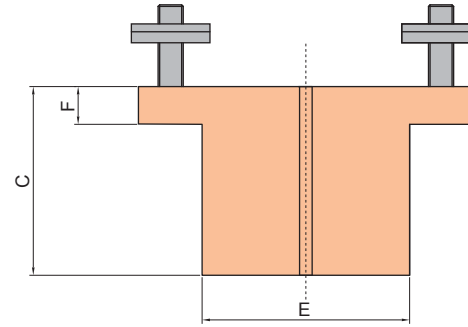
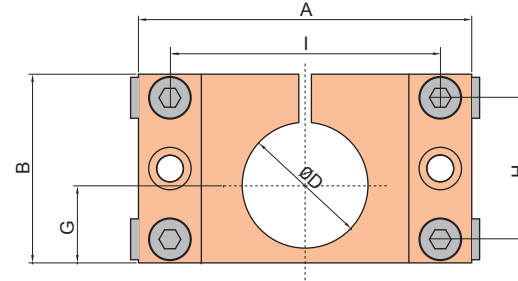


| TYPE | A | B | C | ØD | E | F |
|-----------|----|----|----|----|----|----|
| SB2-25-N | 45 | 78 | 61 | 25 | 56 | |
| SB2-40-N | 45 | 78 | 60 | 40 | 60 | |
| SB2-25-60 | 60 | 78 | 60 | 25 | 56 | 45 |
| SB2-40-60 | 60 | 78 | 60 | 40 | 60 | 45 |

MOUNTINGS FOR TRANSFER - Profile Mounting

Stamping

SBS-... SASB...



| | Weight (kg) |
|-----------|-------------|
| SBS-25 | 0.28 |
| SASB240-F | 0.61 |

- ▶ Bolts included
- Material: duraluminium

Examples of applications

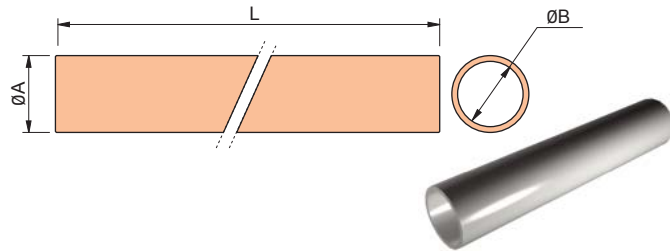


| TYPE | A | B | C | ØD | E | F | G | H | I |
|-----------|-----|----|----|----|----|----|------|----|----|
| SBS-25 | 73 | 50 | 45 | 25 | 45 | 12 | 25 | | 86 |
| SASB240-F | 106 | 60 | 60 | 40 | 66 | 12 | 24.5 | 45 | 86 |

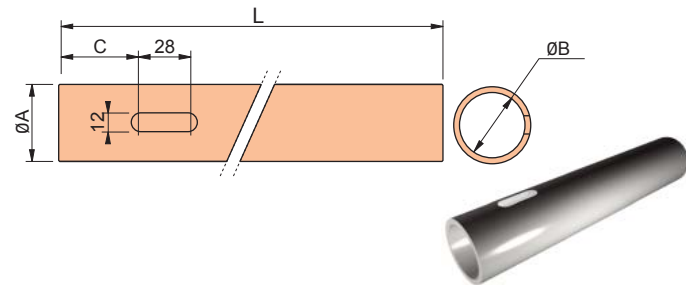
MOUNTINGS FOR TRANSFER - Tube

Stamping

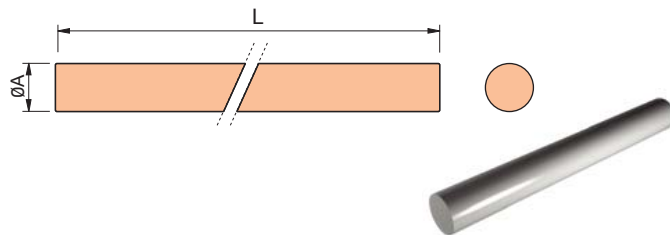
SAPAT-... SATCZ... SABT1-... SAPAB-...



| | Weight (kg/m) |
|--------------------------|---------------|
| SAPAT-25-L | 0.90 |
| SAPAT-40-L | 1.46 |
| ■ Material: duraluminium | |
| SATCZ30X3-L | 2.04 |
| ■ Material: steel | |



| | Weight (kg/m) |
|--------------------------|---------------|
| SABT1-40-L | 1.46 |
| ■ Material: duraluminium | |



| | Weight (kg/m) |
|--------------------------|---------------|
| SAPAB-25-L | 1.28 |
| ■ Material: duraluminium | |

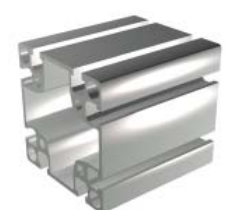
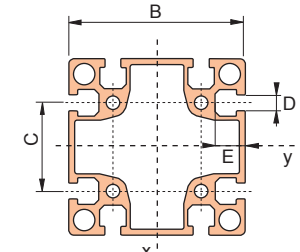
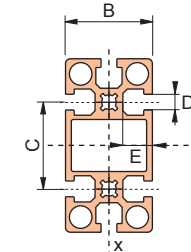
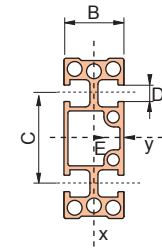
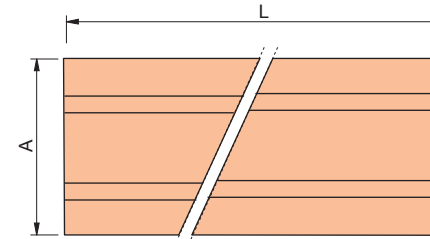
Tubes can be supplied in cuts multiple of 10mm.

| TYPE | ØA | ØB | C |
|-------------|----|----|-----|
| SAPAT-25-L | 25 | 15 | |
| SAPAT-40-L | 40 | 28 | |
| SATCZ30X3-L | 30 | 24 | |
| SABT1-40-L | 40 | 28 | 228 |
| SAPAB-25-L | 25 | | |

MOUNTINGS FOR TRANSFER - Profile

Stamping

P-...



■ P-30X80-L

■ P-45X90-L

■ P-90X90-L

| | P-30X80-L | P-45X90-L | P-90X90-L |
|-----------------------|-----------|-----------|-----------|
| Ix (cm ⁴) | | 113.205 | 186.260 |
| Iy (cm ⁴) | | 28.584 | 186.260 |
| wx (cm ⁴) | | 25.156 | 41.391 |
| wy (cm ⁴) | | 12.704 | 41.391 |
| Weight (kg/m) | 2.2 | 3.667 | 5.222 |
| Max. length (m) | 6 | 6 | 6 |

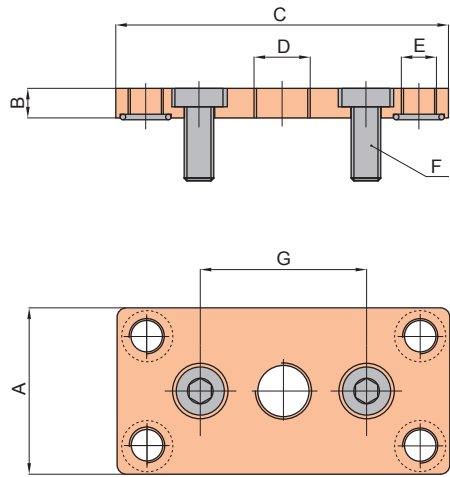
■ Material: duraluminium

| TYPE | A | B | C | D | E |
|-----------|----|----|----|-----|----|
| P-30X80-L | 80 | 30 | 45 | 8,2 | 13 |
| P-45X90-L | 90 | 45 | 45 | 8,2 | 15 |
| P-90X90-L | 90 | 90 | 45 | 8,2 | 15 |

MOUNTINGS FOR TRANSFER - Pneumatic Distributor

F-459...

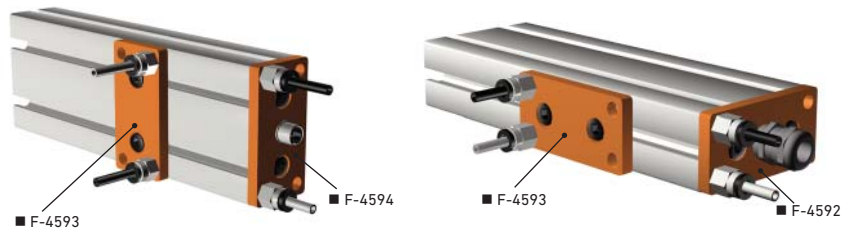
Stamping



| | Weight (kg) |
|--------|-------------|
| F-4592 | 0.29 |
| F-4593 | 0.29 |
| F-4594 | 0.29 |

- ▶ Bolts included
- ▶ O-rings included
- Material: steel

Examples of applications

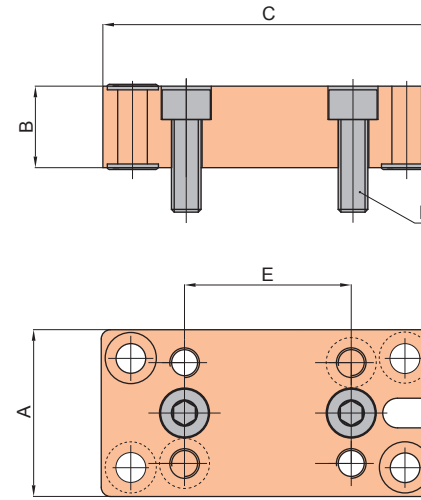


| TYPE | A | B | C | D | E | F | G |
|--------|----|---|----|---------|-------|-------|----|
| F-4592 | 45 | 8 | 90 | M20X1.5 | G 1/8 | M8X16 | 45 |
| F-4593 | 45 | 8 | 90 | | G 1/8 | M8X16 | 45 |
| F-4594 | 45 | 8 | 90 | PG 9 | G 1/8 | M8X16 | 45 |

MOUNTINGS FOR TRANSFER - Profile Connector Plate

F-4591

Stamping



| | Weight (kg) |
|--------|-------------|
| F-4591 | 0.60 |

- ▶ Bolts included
- ▶ O-rings included
- Delivery of 2 pieces
- Material: steel

Examples of applications

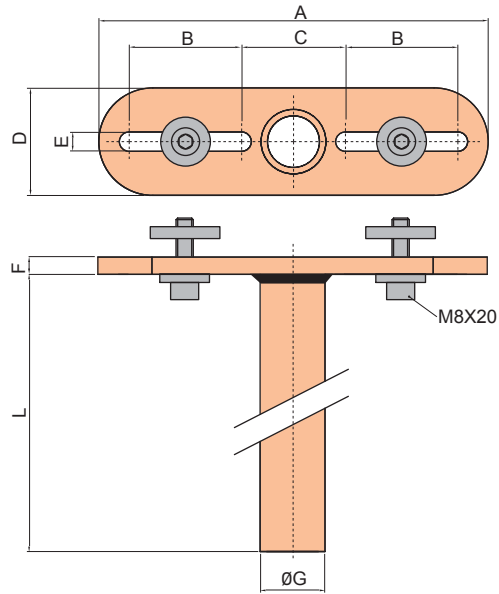


| TYPE | A | B | C | D | E |
|--------|----|----|----|-------|----|
| F-4591 | 45 | 22 | 90 | M8X35 | 45 |

MOUNTINGS FOR TRANSFER - Profile Mounting

Stamping

SB-NS-P-30-...



| | Weight (kg) |
|----------------|-------------|
| SB-NS-P-30-100 | 0.70 |
| SB-NS-P-30-150 | 0.80 |
| SB-NS-P-30-200 | 0.90 |
| SB-NS-P-30-250 | 1.01 |
| SB-NS-P-30-300 | 1.11 |
| SB-NS-P-30-350 | 1.21 |
| SB-NS-P-30-400 | 1.32 |

- ▶ Bolts included
- Material: steel

Example of application

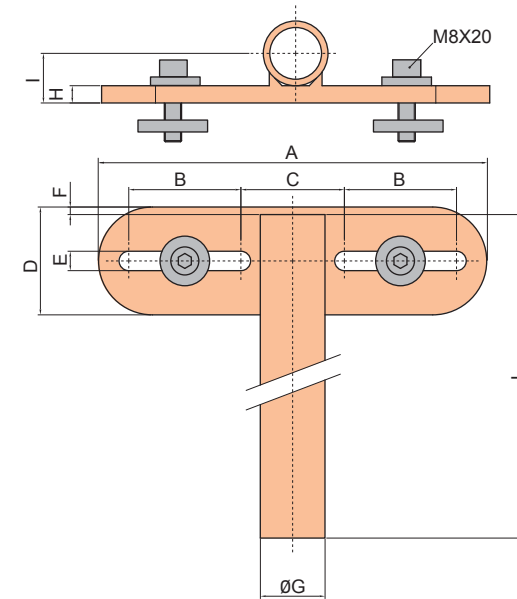


| TYPE | A | B | C | D | E | F | ØG | L |
|--------------|-----|----|----|----|---|---|----|-----------|
| SB-NS-P-30-L | 180 | 52 | 48 | 50 | 9 | 8 | 30 | 100...400 |

MOUNTINGS FOR TRANSFER - Profile Mounting

Stamping

SB-NS-V-30-...



| | Weight (kg) |
|----------------|-------------|
| SB-NS-V-30-100 | 0.71 |
| SB-NS-V-30-150 | 0.82 |
| SB-NS-V-30-200 | 0.92 |
| SB-NS-V-30-250 | 1.02 |
| SB-NS-V-30-300 | 1.12 |
| SB-NS-V-30-350 | 1.22 |
| SB-NS-V-30-400 | 1.33 |

- ▶ Bolts included
- Material: steel

Examples of applications



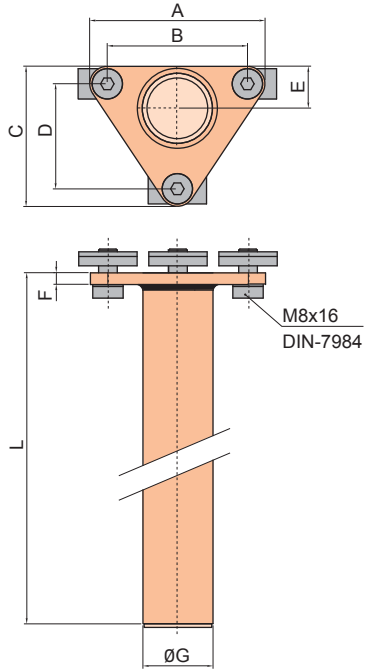
| TYPE | A | B | C | D | E | F | ØG | H | I | L |
|--------------|-----|----|----|----|---|-----|----|---|----|-----------|
| SB-NS-V-30-L | 180 | 52 | 48 | 50 | 9 | 3.5 | 30 | 8 | 23 | 100...400 |

MOUNTINGS FOR TRANSFER - Profile Mounting

SP-30-...

NEW

Stamping



| | Weight (kg) |
|-----------|-------------|
| SP-30-200 | 0.41 |
| SP-30-250 | 0.48 |
| SP-30-300 | 0.55 |

- ▶ Bolts included
- Material: steel

Example of application



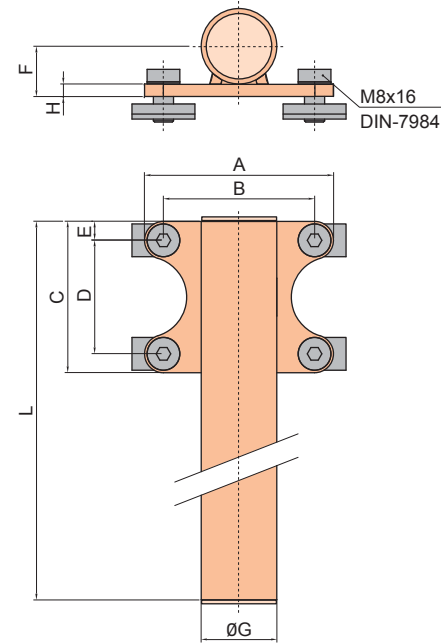
| TYPE | A | B | C | D | E | F | ØG | L |
|---------|----|----|----|----|----|---|----|-----------|
| SP-30-L | 75 | 60 | 60 | 45 | 18 | 5 | 30 | 100...300 |

Stamping

NEW

MOUNTINGS FOR TRANSFER - Profile Mounting

SV-30-...



| | Weight (kg) |
|-----------|-------------|
| SV-30-200 | 0.46 |
| SV-30-250 | 0.53 |
| SV-30-300 | 0.60 |

- ▶ Bolts included
- Material: steel

Examples of applications



| TYPE | A | B | C | D | E | F | ØG | H | L |
|---------|----|----|----|----|-----|----|----|---|-----------|
| SV-30-L | 75 | 60 | 60 | 45 | 7.5 | 20 | 30 | 5 | 100...250 |

PARALLEL MOUNTING 7-26



T-MOUNTING 7-28



CROSS MOUNTING 7-31



SWIVEL BRACKET 7-33



ELBOW & CROSS BOOM ADAPTER 7-35



ROBOT PLATE 7-37



BAYONET 7-37



CONCENTRIC RING FOR ROBOTS 7-41



PLATE MOUNTING 7-42



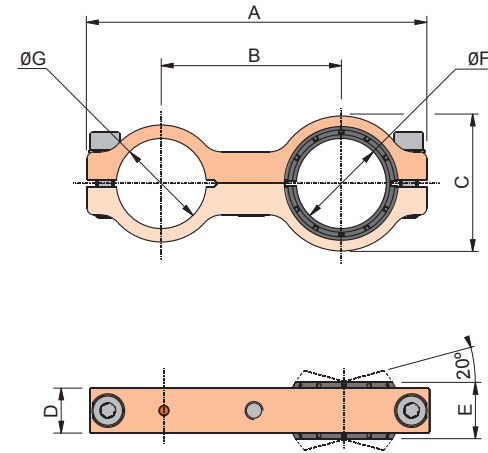
PLATE FOR COMPONENTS 7-43



SENSOR MOUNTING 7-45



TUBE 7-46



| | Weight (kg) |
|-------------|-------------|
| SAPKO-25-25 | 0.23 |
| SAPKO-25-40 | 0.19 |
| SAPKO-28-25 | 0.22 |
| SAPKO-28-40 | 0.21 |
| SAPKO-40-25 | 0.22 |
| SAPKO-40-40 | 0.19 |

- ▶ Bolts included
- **Material:** duraluminium & hardened steel

Example of application

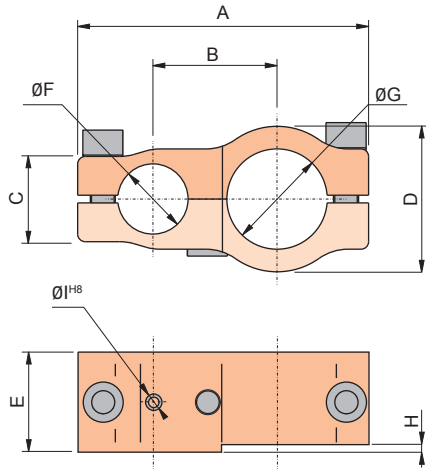


| TYPE | A | B | C | D | E | ØF | ØG |
|-------------|-----|----|----|----|----|----|----|
| SAPKO-25-25 | 139 | 80 | 48 | 20 | 25 | 25 | 25 |
| SAPKO-25-40 | 146 | 80 | 52 | 20 | 25 | 25 | 40 |
| SAPKO-28-25 | 139 | 80 | 48 | 20 | 25 | 28 | 25 |
| SAPKO-28-40 | 146 | 80 | 52 | 20 | 25 | 28 | 40 |
| SAPKO-40-25 | 146 | 80 | 52 | 20 | 25 | 40 | 25 |
| SAPKO-40-40 | 151 | 80 | 60 | 20 | 25 | 40 | 40 |

MOUNTINGS FOR GRIPS - Parallel Mounting

Stamping

SAPKR-...



| | Weight (kg) |
|---------------|-------------|
| SAPKR-25-25 | 0.37 |
| SAPKR-25-28-M | 0.36 |
| SAPKR-25-40-M | 0.43 |
| SAPKR-28-40-M | 0.42 |
| SAPKR-40-40-M | 0.47 |

- ▶ Bolts included
- Material: duraluminium

Examples of applications

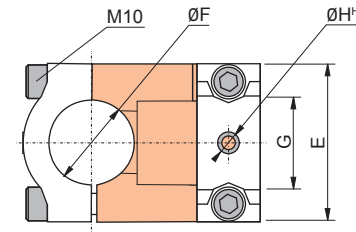
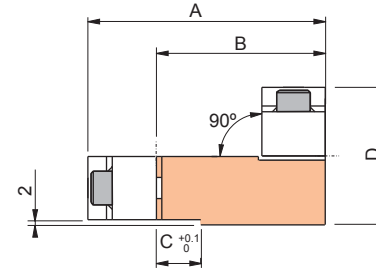


| TYPE | A | B | C | D | E | ØF | ØG | H | ØI |
|---------------|-----|------|----|----|----|----|----|---|----|
| SAPKR-25-25 | 104 | 43.5 | 34 | 40 | 40 | 25 | 25 | | 6 |
| SAPKR-25-28-M | 104 | 43.5 | 34 | 43 | 40 | 25 | 28 | 2 | 6 |
| SAPKR-25-40-M | 116 | 49.5 | 34 | 58 | 40 | 25 | 40 | 2 | 6 |
| SAPKR-28-40-M | 116 | 49.5 | 34 | 58 | 40 | 28 | 40 | 2 | 6 |
| SAPKR-40-40-M | 130 | 60 | 39 | 58 | 40 | 40 | 40 | 2 | 6 |

MOUNTINGS FOR GRIPS - T-Mounting

Stamping

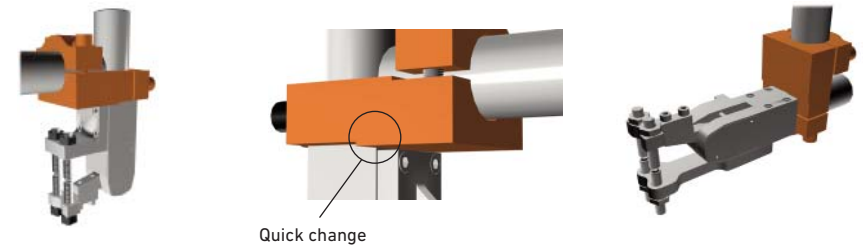
SATKR-...



| | Weight (kg) |
|-------------|-------------|
| SATKR-25-25 | 0.24 |
| SATKR-25-28 | 0.24 |
| SATKR-25-40 | 0.46 |
| SATKR-25-60 | 0.48 |
| SATKR-40-25 | 0.46 |
| SATKR-40-28 | 0.46 |
| SATKR-40-40 | 0.56 |
| SATKR-40-60 | 0.66 |
| SATKR-60-60 | 0.75 |

- ▶ Bolt included
- Material: duraluminium

Examples of applications

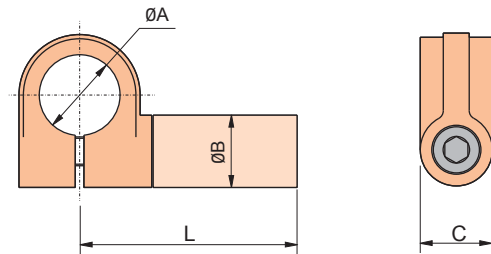


| TYPE | A | B | C | D | E | ØF | ØG | ØH |
|-------------|-------|----|----|------|----|----|----|----|
| SATKR-25-25 | 70.5 | 48 | | 49.5 | 60 | 25 | 25 | 6 |
| SATKR-25-28 | 70.5 | 48 | 16 | 49.5 | 60 | 28 | 25 | 6 |
| SATKR-25-40 | 86.5 | 54 | 21 | 54.5 | 75 | 40 | 25 | 6 |
| SATKR-25-60 | 106 | 64 | | 52.5 | 95 | 60 | 25 | 6 |
| SATKR-40-25 | 88.5 | 66 | 16 | 59.5 | 75 | 25 | 40 | 6 |
| SATKR-40-28 | 88.5 | 66 | 16 | 59.5 | 75 | 28 | 40 | 6 |
| SATKR-40-40 | 105.5 | 73 | 21 | 64.5 | 75 | 40 | 40 | 6 |
| SATKR-40-60 | 120 | 78 | | 62.5 | 95 | 60 | 60 | 6 |
| SATKR-60-60 | 120 | 78 | | 82 | 95 | 60 | 60 | 6 |

MOUNTINGS FOR GRIPS - T-Mounting

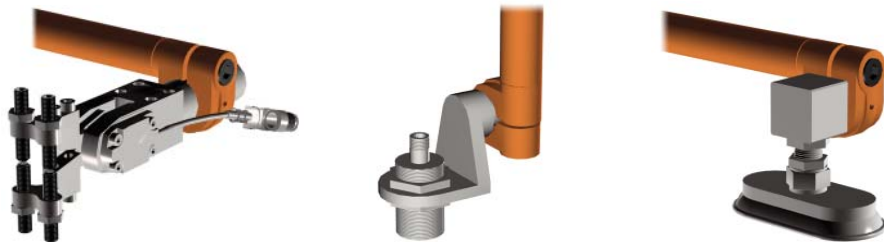
SAES-...

Stamping



- ▶ Bolts included
- Material: duraluminium

Examples of applications



| TYPE | ØA | ØB | C | L |
|--------------|----|----|----|------------|
| SAES-25-19-L | 25 | 19 | 25 | 75 ... 400 |
| SAES-25-25-L | 25 | 25 | 25 | 75 ... 400 |
| SAES-25-28-L | 28 | 25 | 25 | 75 ... 400 |
| SAES-25-40-L | 40 | 25 | 25 | 75 ... 400 |
| SAES-25-60-L | 60 | 25 | 25 | 75 ... 400 |

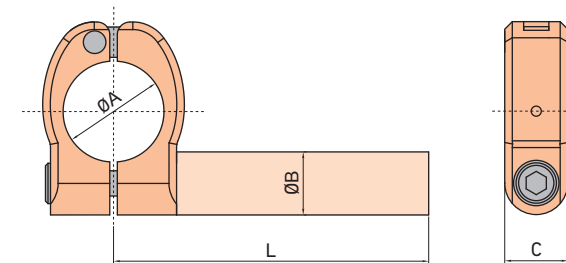
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Stamping

MOUNTINGS FOR GRIPS - T-Mounting

SAES-...



- ▶ Bolts included
- Material: duraluminium

Examples of applications



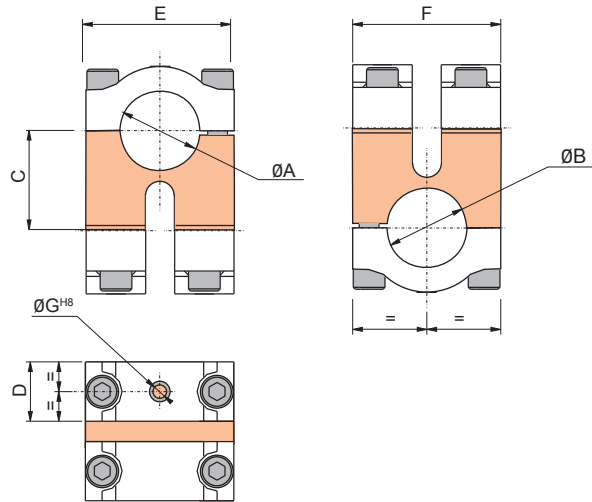
| TYPE | ØA | ØB | C | L |
|------------|----|----|----|----------------|
| SAES-19Z-L | 19 | 25 | 25 | 75,100 ... 400 |
| SAES-25Z-L | 25 | 25 | 25 | 75,100 ... 400 |
| SAES-28Z-L | 28 | 25 | 25 | 75,100 ... 400 |
| SAES-40Z-L | 40 | 25 | 25 | 75,100 ... 400 |
| SAES-60Z-L | 60 | 25 | 25 | 75,100 ... 400 |

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MOUNTINGS FOR GRIPS - Double Cross Mounting

Stamping

SAKLR-...



| | Weight (kg) |
|-------------|-------------|
| SAKLR-25-25 | 0.70 |
| SAKLR-25-40 | 0.82 |
| SAKLR-25-60 | 0.87 |
| SAKLR-40-40 | 0.90 |
| SAKLR-40-60 | 1.12 |
| SAKLR-60-60 | 1.31 |

- ▶ Bolts included
- Material: duraluminium

Examples of applications

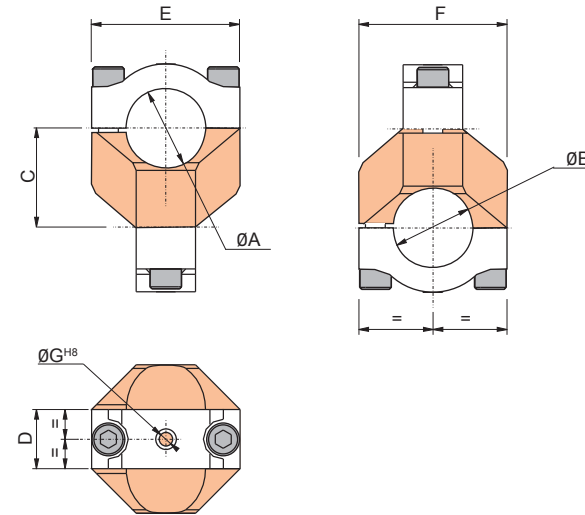


| TYPE | ØA | ØB | C | D | E | F | ØG |
|-------------|----|----|------|----|----|----|----|
| SAKLR-25-25 | 25 | 25 | 26 | 30 | 60 | 60 | 6 |
| SAKLR-25-40 | 25 | 40 | 33.5 | 30 | 60 | 75 | 6 |
| SAKLR-25-60 | 25 | 60 | 45.5 | 30 | 60 | 90 | 6 |
| SAKLR-40-40 | 40 | 40 | 41 | 30 | 75 | 75 | 6 |
| SAKLR-40-60 | 40 | 60 | 51 | 30 | 75 | 90 | 6 |
| SAKLR-60-60 | 60 | 60 | 61 | 30 | 90 | 90 | 6 |

MOUNTINGS FOR GRIPS - Simple Cross Mounting

Stamping

SAKLS-...



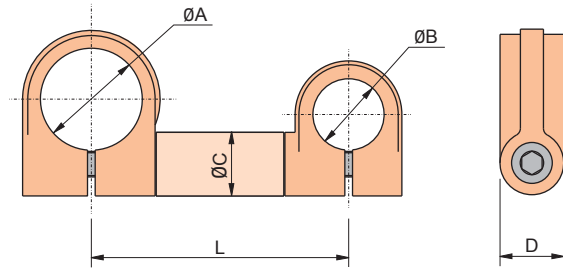
| | Weight (kg) |
|-------------|-------------|
| SAKLS-25-25 | 0.42 |
| SAKLS-25-40 | 0.53 |
| SAKLS-25-60 | 0.64 |
| SAKLS-40-40 | 0.70 |
| SAKLS-40-60 | 0.77 |
| SAKLS-60-60 | 0.82 |

- ▶ Bolts included
- Material: duraluminium

Examples of applications



| TYPE | A | B | C | D | E | F | ØG |
|-------------|----|----|------|----|----|----|----|
| SAKLS-25-25 | 25 | 25 | 26 | 30 | 60 | 60 | 6 |
| SAKLS-25-40 | 25 | 40 | 33.5 | 30 | 60 | 75 | 6 |
| SAKLS-25-60 | 25 | 60 | 45.5 | 30 | 60 | 90 | 6 |
| SAKLS-40-40 | 40 | 40 | 41 | 30 | 75 | 75 | 6 |
| SAKLS-40-60 | 40 | 60 | 51 | 30 | 75 | 90 | 6 |
| SAKLS-60-60 | 60 | 60 | 61 | 30 | 90 | 90 | 6 |



- ▶ Bolts included
- Material: duraluminium

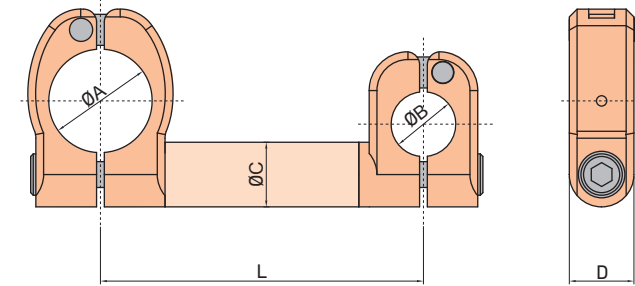
Examples of applications



| TYPE | ØA | ØB | ØC | D | L |
|-----------------|----|----|----|----|-------------|
| SAED-25-25-19-L | 25 | 19 | 25 | 25 | 100 ... 400 |
| SAED-25-25-25-L | 25 | 25 | 25 | 25 | 100 ... 400 |
| SAED-25-25-28-L | 25 | 28 | 25 | 25 | 100 ... 400 |
| SAED-25-25-40-L | 25 | 40 | 25 | 25 | 100 ... 400 |
| SAED-25-40-19-L | 40 | 19 | 25 | 25 | 100 ... 400 |

| TYPE | ØA | ØB | ØC | D | L |
|-----------------|----|----|----|----|-------------|
| SAED-25-40-28-L | 40 | 28 | 25 | 25 | 100 ... 400 |
| SAED-25-40-40-L | 40 | 40 | 25 | 25 | 100 ... 400 |
| SAED-25-60-25-L | 60 | 25 | 25 | 25 | 100 ... 400 |
| SAED-25-60-28-L | 60 | 28 | 25 | 25 | 100 ... 400 |
| SAED-25-60-40-L | 60 | 40 | 25 | 25 | 100 ... 400 |

Misati reserves the right to modify any characteristics of this catalogue. Check the last stage of information in www.misati.com



- ▶ Bolts included
- Material: duraluminium

Examples of applications



| TYPE | ØA | ØB | ØC | D | L |
|----------------|----|----|----|----|-------------|
| SAED-25Z-19Z-L | 25 | 19 | 25 | 25 | 100 ... 400 |
| SAED-25Z-25Z-L | 25 | 25 | 25 | 25 | 100 ... 400 |
| SAED-25Z-28Z-L | 25 | 28 | 25 | 25 | 100 ... 400 |
| SAED-25Z-40Z-L | 25 | 40 | 25 | 25 | 100 ... 400 |
| SAED-40Z-19Z-L | 40 | 19 | 25 | 25 | 100 ... 400 |

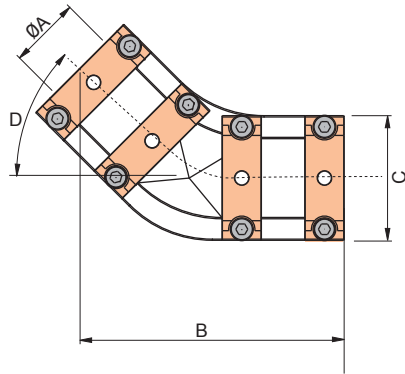
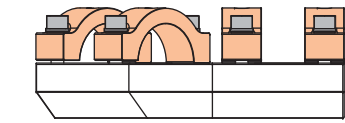
| TYPE | ØA | ØB | ØC | D | L |
|----------------|----|----|----|----|-------------|
| SAED-40Z-28Z-L | 40 | 28 | 25 | 25 | 100 ... 400 |
| SAED-40Z-40Z-L | 40 | 40 | 25 | 25 | 100 ... 400 |
| SAED-60Z-25Z-L | 60 | 25 | 25 | 25 | 100 ... 400 |
| SAED-60Z-28Z-L | 60 | 28 | 25 | 25 | 100 ... 400 |
| SAED-60Z-40Z-L | 60 | 40 | 25 | 25 | 100 ... 400 |

Misati reserves the right to modify any characteristics of this catalogue. Check the last stage of information in www.misati.com

MOUNTINGS FOR GRIPS - Elbow

Stamping

SADC-...



| | Weight (kg) |
|--------------|-------------|
| SADC-6060-45 | 1.75 |

- ▶ Bolts included
- Material: duraluminium

Example of application

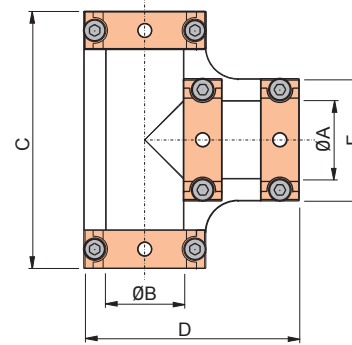
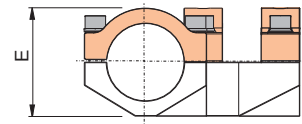


| TYPE | ØA | B | C | D |
|--------------|----|-----|----|----|
| SADC-6060-45 | 60 | 202 | 95 | 45 |

MOUNTINGS FOR GRIPS - Cross Boom Adapter

Stamping

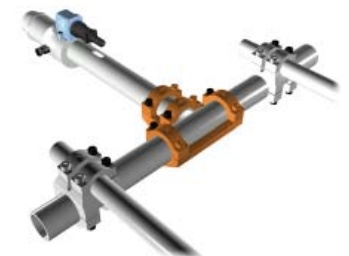
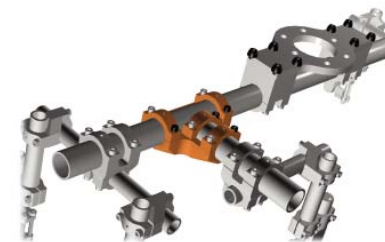
SADC-...



| | Weight (kg) |
|---------------|-------------|
| SADC-4040-BBA | 1.50 |
| SADC-6040-BBA | 1.70 |
| SADC-6060-BBA | 2.00 |

- ▶ Bolts included
- Material: duraluminium

Examples of applications

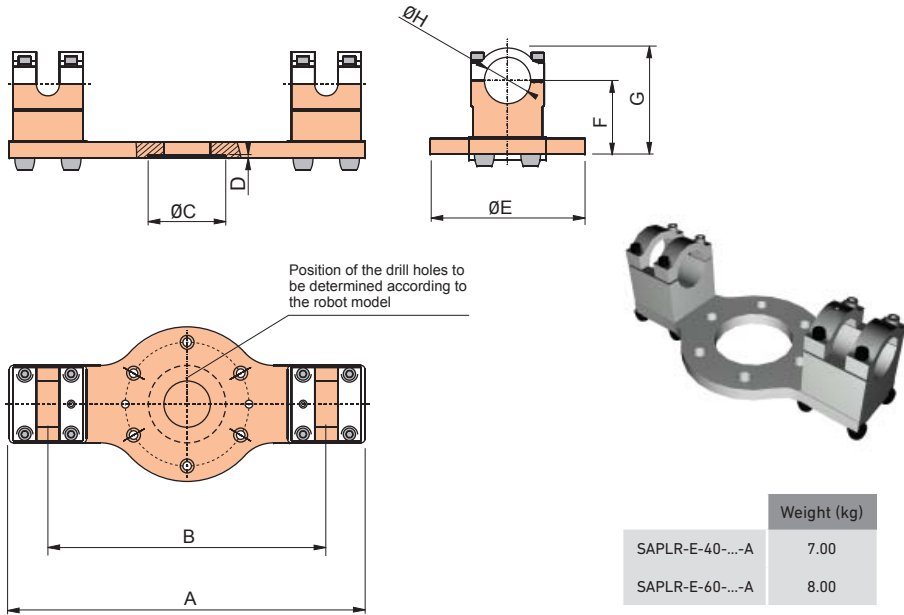


| TYPE | ØA | ØB | C | D | E | F |
|---------------|----|----|-----|-------|----|----|
| SADC-4040-BBA | 40 | 40 | 200 | 167.5 | 85 | 75 |
| SADC-6040-BBA | 60 | 40 | 200 | 167.5 | 85 | 75 |
| SADC-6060-BBA | 60 | 60 | 200 | 167.5 | 84 | 95 |

MOUNTINGS FOR GRIPS - Simple Robot Plate

Stamping

SAPLR-E-...



- ▶ Bolts included
- ▶ Mountings with electrical insulation
- **Material:** duraluminium

Example of application

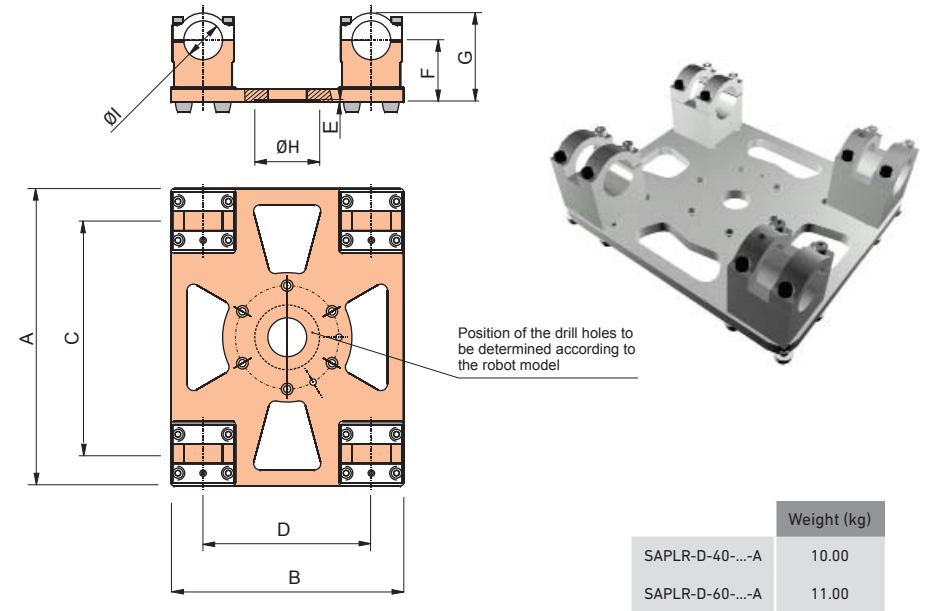


| TYPE | ØA | B | C | D | ØE | F | G | ØH |
|------------------|-----|-----|-----|---|-----|----|-------|----|
| SAPLR-E-40-...-A | 460 | 360 | 100 | 3 | 200 | 79 | 111.5 | 40 |
| SAPLR-E-60-...-A | 460 | 360 | 100 | 3 | 200 | 79 | 137 | 60 |

MOUNTINGS FOR ROBOTS - Double Robot Plate

Stamping

SAPLR-D-...



- ▶ Bolts included
- ▶ Mountings with electrical insulation
- **Material:** duraluminium

Example of application

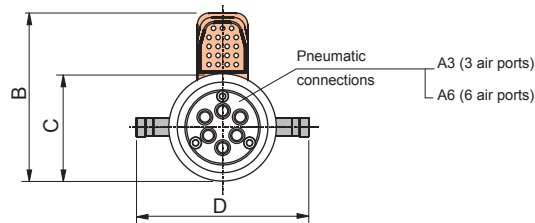
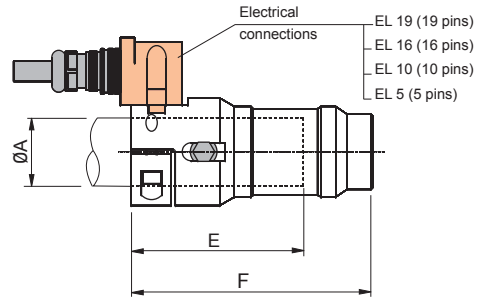


| TYPE | A | B | C | D | E | F | G | ØH | ØI |
|------------------|-----|-----|-----|-----|---|----|-------|-----|----|
| SAPLR-D-40-...-A | 460 | 360 | 360 | 260 | 3 | 79 | 111.5 | 100 | 40 |
| SAPLR-D-60-...-A | 460 | 360 | 360 | 260 | 3 | 95 | 137 | 100 | 60 |

MOUNTINGS FOR GRIPS - Bayonet

Stamping

SARDC-... SATDC-...



| | Weight (kg) |
|-----------------------|-------------|
| SARDC-60-1-A...-EL... | 2.28 |
| SATDC-40-1-A3-EL5 | 2.96 |

- ▶ Bolts included
- Material: duraluminium

Example of application



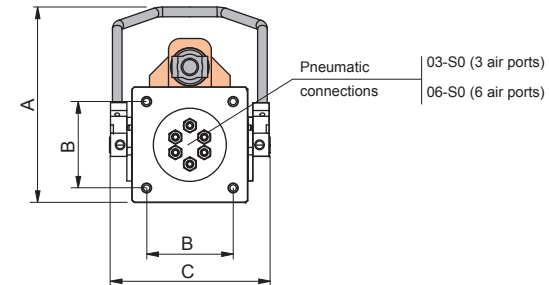
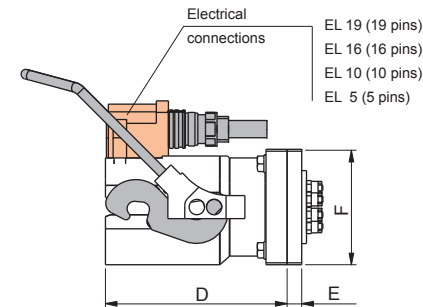
■ Ordering information, e.g.: SARDC-60-1-A3-EL19

| TYPE | $\varnothing A$ | B | $\varnothing C$ | D | E | F |
|-----------------------|-----------------|-----|-----------------|-----|-----|-----|
| SARDC-60-1-A...-EL 19 | 60 | 147 | 95 | 152 | 152 | 213 |
| SARDC-60-1-A...-EL 16 | 60 | 147 | 95 | 152 | 152 | 213 |
| SARDC-60-1-A...-EL 10 | 60 | 131 | 95 | 152 | 152 | 213 |
| SARDC-60-1-A...-EL 5 | 60 | 130 | 95 | 152 | 152 | 213 |
| SATDC-40-1-A3-EL 5 | 40 | 110 | 55 | 98 | 152 | 213 |

MOUNTINGS FOR GRIPS - Quick Disconnect Housing

Stamping

SARDN-... SATTN-...



| | Weight (kg) |
|---------------------|-------------|
| SARDN-60-6...-EL... | 5.20 |
| SATTN-40-1F-A3-EL5 | 2.20 |

- ▶ Bolts included
- Material: duraluminium

Example of application

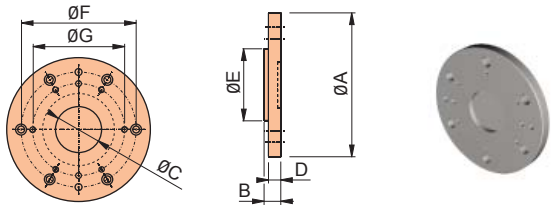


■ Ordering information, e.g.: SARDN-60-6-06-S0-EL19

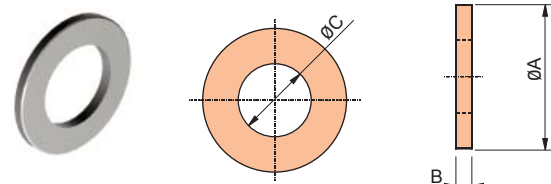
| TYPE | A | B | C | D | E | F |
|--------------------|-----|----|-----|-----|----|-----|
| SARDN-60-6...-EL19 | 143 | 90 | 172 | 189 | 15 | 120 |
| SARDN-60-6...-EL16 | 143 | 90 | 172 | 189 | 15 | 120 |
| SARDN-60-6...-EL10 | 143 | 90 | 172 | 189 | 15 | 120 |
| SARDN-60-6...-EL5 | 143 | 90 | 172 | 189 | 15 | 120 |
| SATTN-40-1F-A3-EL5 | 40 | 60 | 112 | 133 | 13 | 83 |

SAKA-... SAFA-...

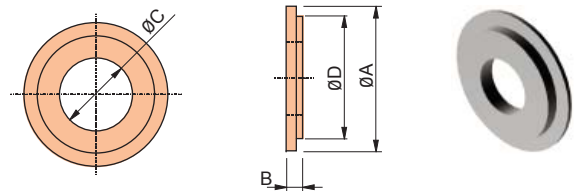
SAKA-760-FA-M900-260



SAKA-760-4



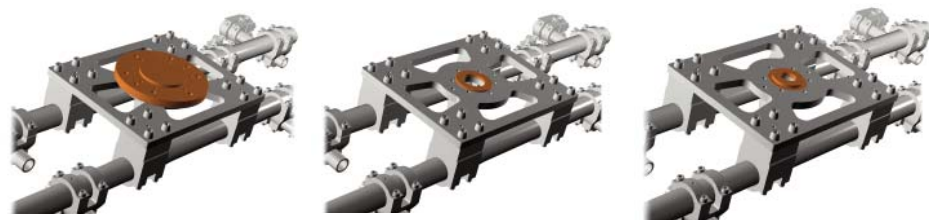
SAFA-430-01



| | Weight (kg) |
|----------------------|-------------|
| SAKA-760-FA-M900-260 | 2.80 |
| SAKA-760-4 | 0.20 |
| SAFA-430-01 | 0.13 |

- ▶ Bolts included
- Material: duraluminium

Examples of applications



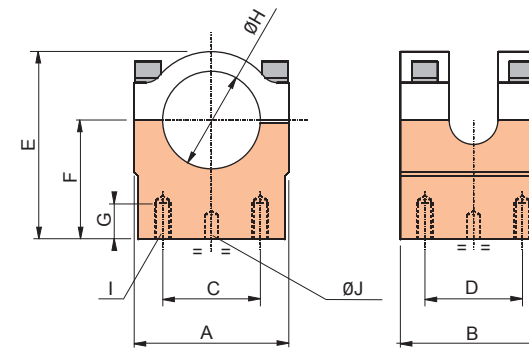
■ SAKA-760-FA-M900-260

■ SAKA-760-4

■ SAFA-430-01

| TYPE | ROBOT | ØA | B | ØC | D | ØE | ØF | ØG |
|----------------------|--------------------------|-----|------|------|----|-----|-----|-----|
| SAKA-760-FA-M900-260 | FANUC M900IA/260L | 250 | 29.5 | 80 | 22 | 125 | 200 | 160 |
| SAKA-760-4 | KUKA 760 | 100 | 11 | 50.8 | | | | |
| SAFA-430-01 | FANUC S-430/ABB IRB 6400 | 100 | 11 | 40 | 80 | | | |

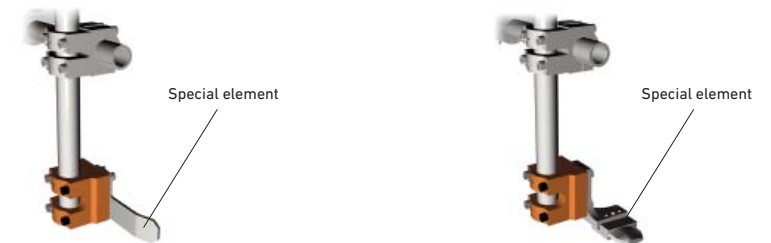
SAPLR-...



| | Weight (kg) |
|----------|-------------|
| SAPLR-40 | 0.90 |
| SAPLR-60 | 1.30 |

- ▶ Bolts included
- Material: duraluminium

Examples of applications

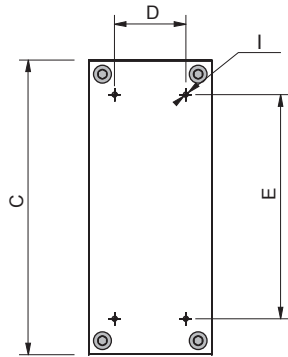
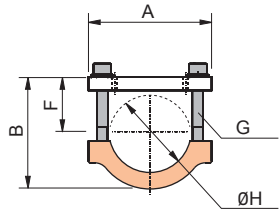


| TYPE | A | B | C | D | E | F | G | ØH | I | ØJ |
|----------|----|----|----|----|------|----|----|----|-----|------|
| SAPLR-40 | 90 | 90 | 60 | 60 | 89.5 | 57 | 22 | 40 | M10 | 8X17 |
| SAPLR-60 | 90 | 90 | 60 | 60 | 115 | 73 | 22 | 60 | M10 | 8X17 |

MOUNTINGS FOR GRIPS - Plate for Components

Stamping

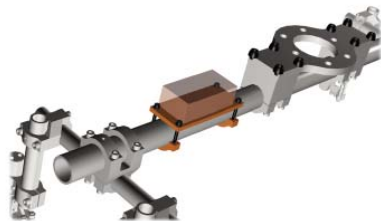
SAPL-...



| | Weight (kg) |
|----------------|-------------|
| SAPL-215-40-DC | 0.52 |
| SAPL-215-60-DC | 0.67 |

- ▶ Bolts included
- Material: duraluminium

Example of application

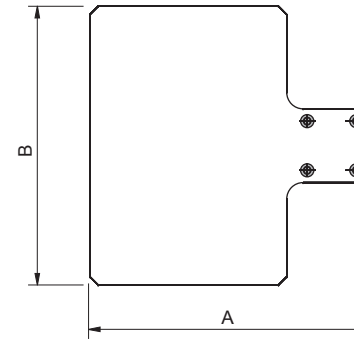
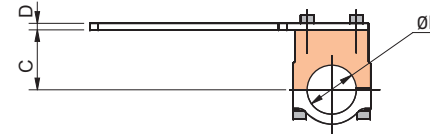


| TYPE | A | B | C | D | E | F | G | ØH | I |
|----------------|----|----|-----|----|-----|----|-------|----|----|
| SAPL-215-40-DC | 80 | 62 | 215 | 52 | 157 | 30 | M8X55 | 40 | M4 |
| SAPL-215-60-DC | 90 | 82 | 215 | 52 | 164 | 40 | M8X65 | 60 | M4 |

MOUNTINGS FOR GRIPS - Plate for Components

Stamping

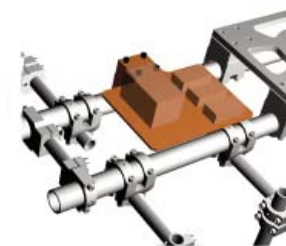
SAPL-MG...



| | Weight (kg) |
|----------------|-------------|
| SAPL-MG-40-340 | 0.52 |
| SAPL-MG-60-340 | 0.67 |

- ▶ Bolts included
- Material: duraluminium

Examples of applications

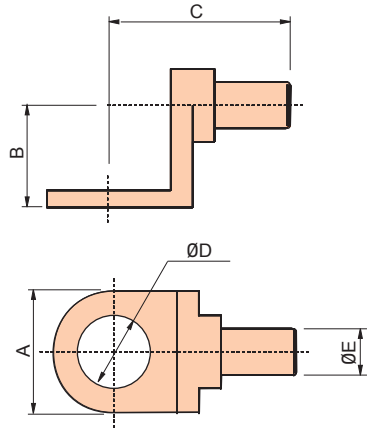


| TYPE | A | B | C | D | ØE |
|----------------|-----|-----|----|---|----|
| SAPL-MG-40-340 | 340 | 340 | 57 | 8 | 40 |
| SAPL-MG-60-340 | 340 | 340 | 73 | 8 | 60 |

MOUNTINGS FOR GRIPS - Sensor Mounting

Stamping

SASAP-...



► Sensor NOT included

■ **Related accessories:**

- Sheet Sensor SI-M18 & SI-M30p. 8-07
- T-Mountingpp. 7-28 to 7-30
- Swivel Bracketpp. 7-33 to 7-34

■ **Material:** duraluminium

| | Weight (kg) |
|----------|-------------|
| SASAP-18 | 0.13 |
| SASAP-30 | 0.14 |

Examples of applications

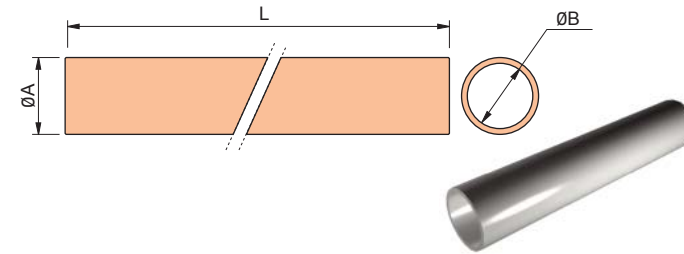


| TYPE | A | B | C | ØD | ØE |
|----------|----|----|----|------|----|
| SASAP-18 | 50 | 42 | 75 | 18.2 | 19 |
| SASAP-30 | 50 | 42 | 75 | 30.2 | 19 |

MOUNTINGS FOR GRIPS - Tube

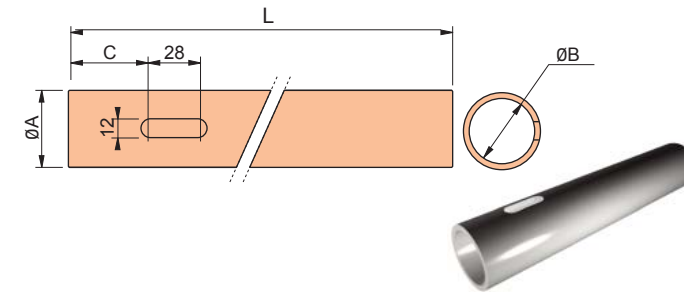
Stamping

SAPAT-... SABT1-... SAPAB-...



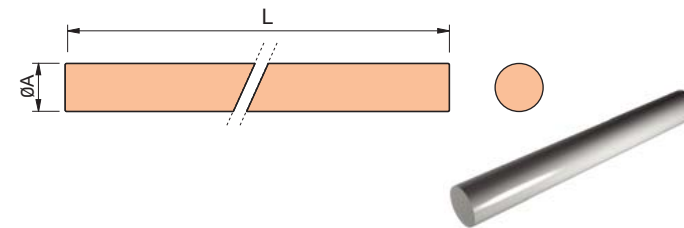
| | Weight (kg/m) |
|------------|---------------|
| SAPAT-25-L | 0.90 |
| SAPAT-40-L | 1.46 |
| SAPAT-60-L | 2.46 |

■ **Material:** duraluminium



| | Weight (kg/m) |
|------------|---------------|
| SABT1-40-L | 1.46 |
| SABT1-60-L | 2.46 |

■ **Material:** duraluminium



| | Weight (kg/m) |
|------------|---------------|
| SAPAB-25-L | 1.28 |

■ **Material:** duraluminium

Tubes can be supplied in cuts multiple of 10mm.

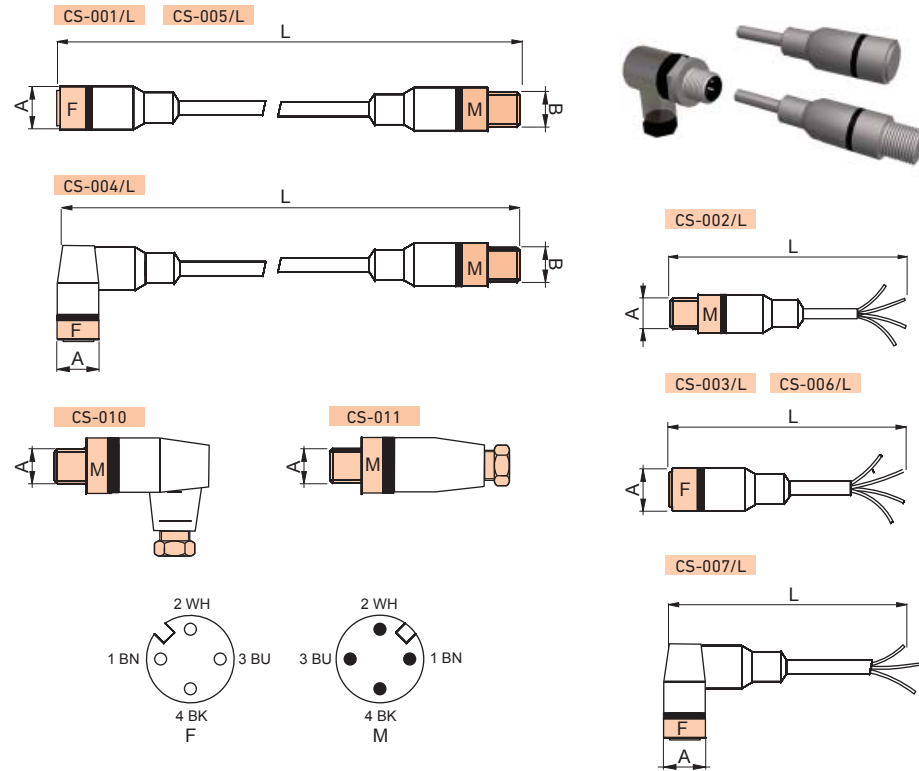
| TYPE | ØA | ØB | C |
|------------|----|------|-----|
| SAPAT-25-L | 25 | 15 | |
| SAPAT-40-L | 40 | 28 | |
| SAPAT-60-L | 60 | 49.5 | |
| SABT1-40-L | 40 | 28 | 228 |
| SABT1-60-L | 60 | 49.5 | 183 |
| SAPAB-25-L | 25 | | |

8 ACCESSORIES

- Cable & Connector
- Multi-port Junction Block & Y-Distributor
- Pneumatic Components
- Sheet Sensor



CS-...



Examples of applications

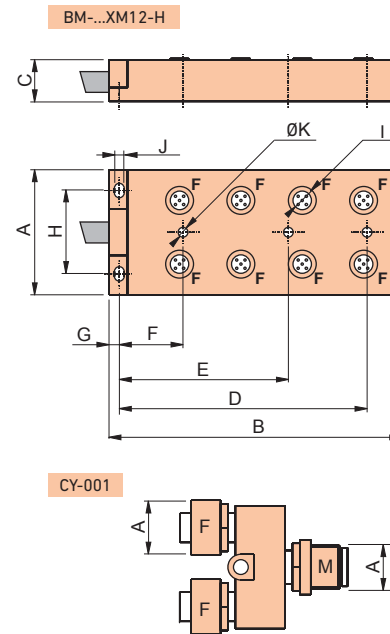


| TYPE | L | A | B | TYPE | L | A | B |
|------------|-----|------|------|-------|-------|---|---|
| CS-001/... | 600 | 1000 | 2000 | M12X1 | M12X1 | | |
| CS-002/... | | | 2000 | M12X1 | | | |
| CS-003/... | | | 2000 | M12X1 | | | |
| CS-004/... | 600 | 1000 | 2000 | M12X1 | M12X1 | | |
| CS-005/... | 600 | 1000 | 2000 | M8X1 | M12X1 | | |

| TYPE | L | A | B |
|------------|------|---|-------|
| CS-006/... | 2000 | | M8X1 |
| CS-007/... | 2000 | | M8X1 |
| CS-010 | | | M12X1 |
| CS-011 | | | M12X1 |

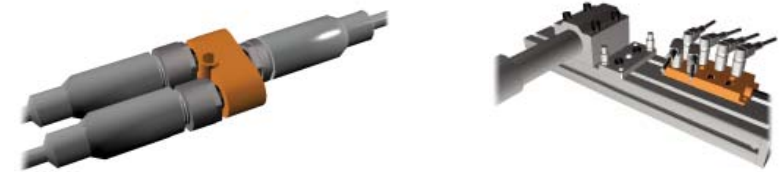
COMMENTS
Connectors without Led, with 4 poles, a degree of protection IP67 and cables ready for aggressive environments (PUR)

BM-... CY-...



| | Weight (kg) |
|--------------|-------------|
| BM- 6XM12-H | 0.65 |
| BM- 8XM12-H | 0.63 |
| BM- 16XM12-H | 0.68 |
| CY-001 | 0.03 |

Examples of applications

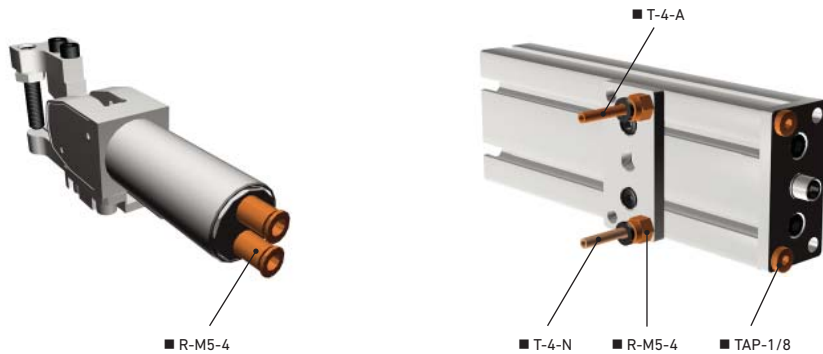


| TYPE | A | B | C | D | E | F | G | H | I | J | ØK | CABLES |
|-------------|-------|-------|------|-----|----|------|-----|----|-------|-----|-----|--------|
| BM-6XM12-H | 60 | 125 | 22 | | 73 | 34 | 4.5 | 39 | M12X1 | 4.7 | 5 | 6+3 |
| BM-8XM12-H | 54 | 126.5 | 18.5 | 107 | 73 | 27.5 | 4.5 | 36 | M12X1 | 4.2 | 4.2 | 8+3 |
| BM-16XM12-H | 54 | 126.5 | 18.5 | 107 | 73 | 27.5 | 4.5 | 36 | M12X1 | 4.2 | 4.2 | 16+3 |
| CY-001 | M12X1 | | | | | | | | | | | |

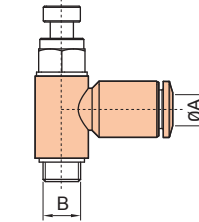


Material: Techno polymer & brass, NBR

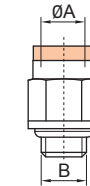
Examples of applications



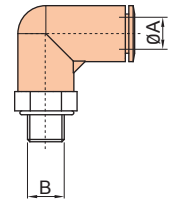
Flow Regulator Fitting Elbow Fitting



- REG-M5-4
- REG-1/8-6



- R-M5-4
- R-1/8-4
- R-1/8-6
- R-1/8-8

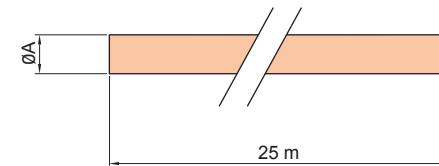


- RC-1/8-8

Cap Tube



- TAP-1/8



- Blue T-4-A
- Black T-4-N
- T-6-A
- T-6-N
- T-8-A
- T-8-N

A=tube diameter
B=thread

| FLOW REGULATOR | | |
|----------------|----|------|
| TYPE | ØA | B |
| REG -M5-4 | 4 | M5 |
| REG -1/8-6 | 6 | G1/8 |

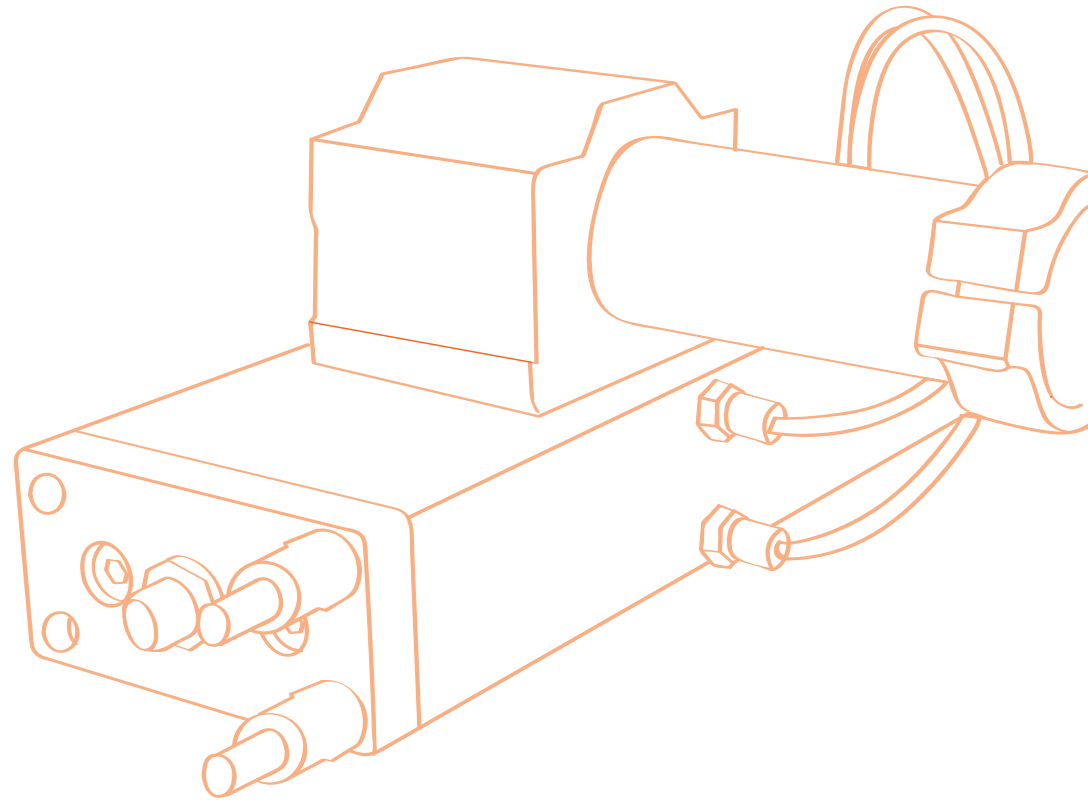
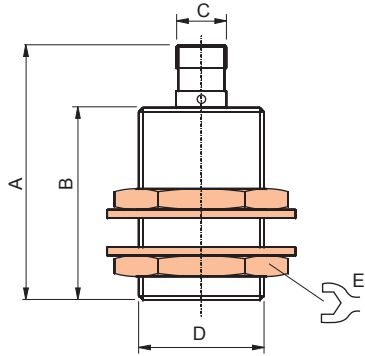
| FITTING | | |
|---------|----|------|
| TYPE | ØA | B |
| R-M5-4 | 4 | M5 |
| R-1/8-4 | 4 | G1/8 |
| R-1/8-6 | 6 | G1/8 |
| R-1/8-8 | 8 | G1/8 |

| ELBOW FITTING | | |
|---------------|----|------|
| TYPE | ØA | B |
| RC-1/8-8 | 8 | G1/8 |

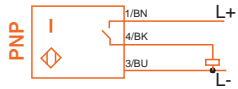
| TUBE | | | | | |
|-------|----|--------|-------|----|--------|
| TYPE | ØA | COLOUR | TYPE | ØA | COLOUR |
| T-4-A | 4 | BLUE | T-4-N | 4 | BLACK |
| T-6-A | 6 | BLUE | T-6-N | 6 | BLACK |
| T-8-A | 8 | BLUE | T-8-N | 8 | BLACK |

| CAP | | |
|-----------|----|------|
| TYPE | ØA | B |
| TAP - 1/8 | | G1/8 |

SI-...



Electrical connections



- ▶ Bolts included
- Related accessories:
Sensor Mounting SASAP-.....p. 7-45

Examples of applications



| TEFLON COATED SENSOR | | | | | |
|----------------------|----|------|-------|-------|----|
| TYPE | A | B | C | D | E |
| SI-M08-T | 50 | 38.5 | M12X1 | M8X1 | 13 |
| SI-M12-T | 65 | 52 | M12X1 | M12X1 | 17 |
| SI-M18-T | 65 | 45 | M12X1 | M18X1 | 24 |

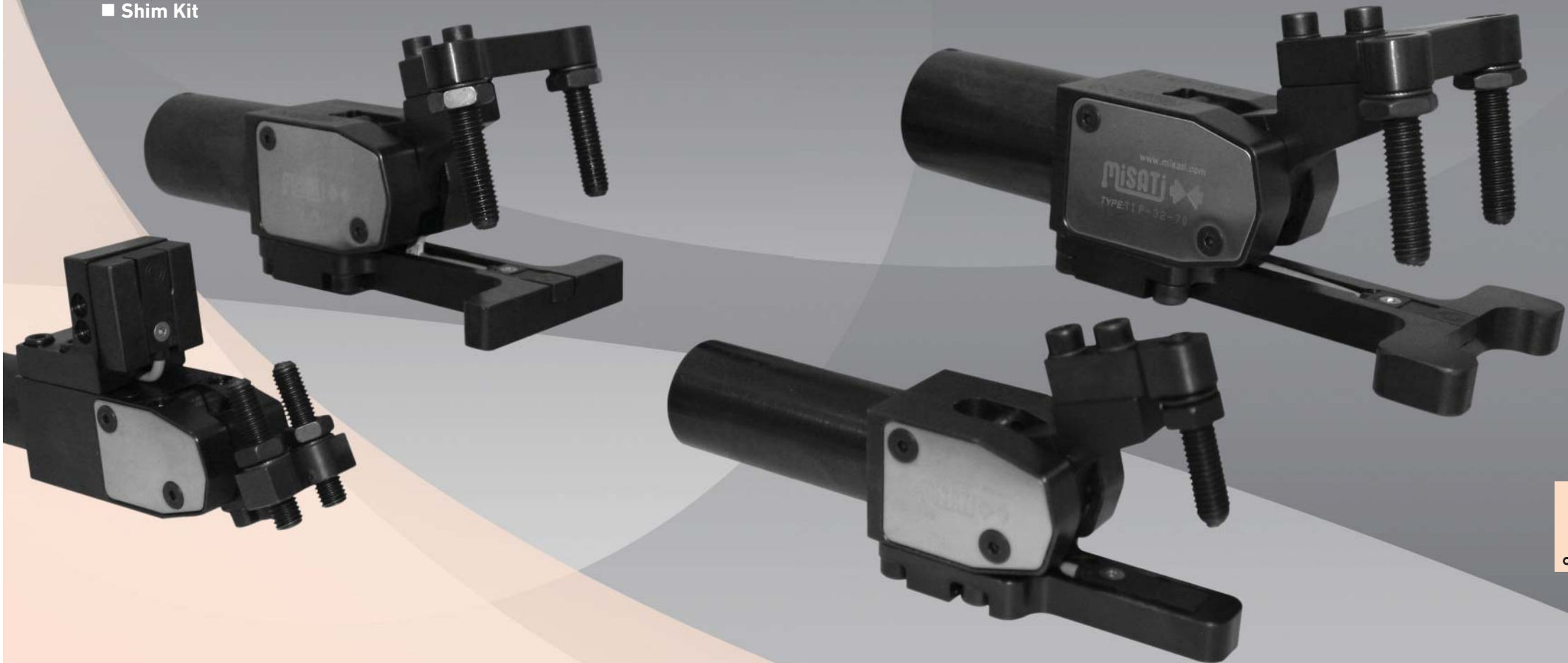
| NON-TEFLON COATED SENSOR | | | | | |
|--------------------------|----|----|-------|---------|----|
| TYPE | A | B | C | D | E |
| SI-M08 | 62 | 40 | M12X1 | M8X1 | 13 |
| SI-M12 | 45 | 32 | M12X1 | M12X1 | 17 |
| SI-M18 | 46 | 30 | M12X1 | M18X1 | 24 |
| SI-M30 | 65 | 34 | M12X1 | M30X1.5 | 36 |

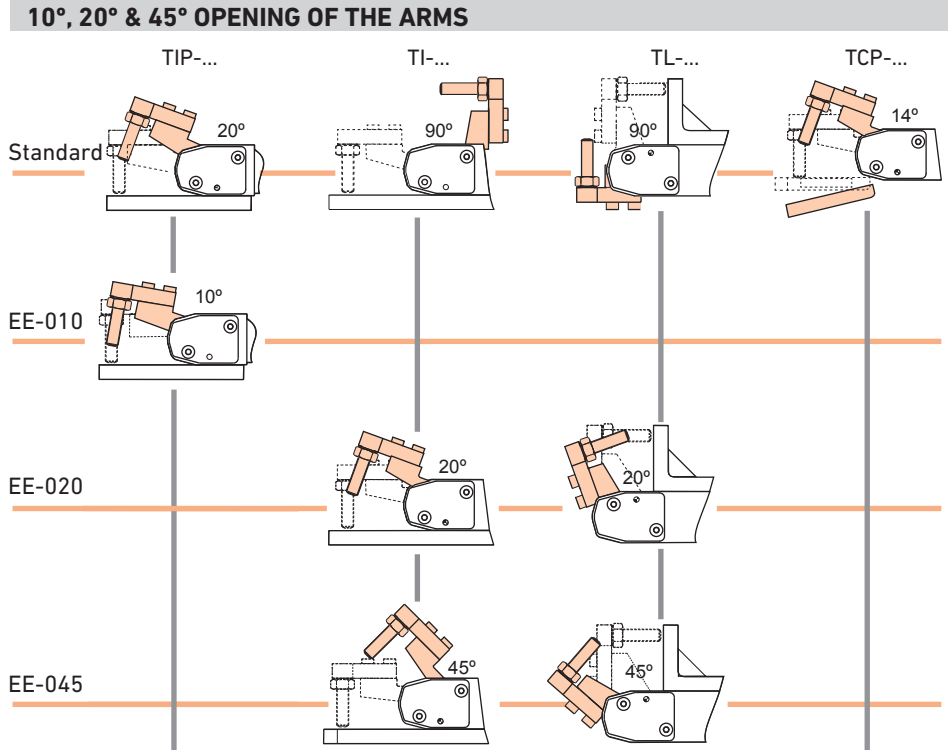


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9 SPECIAL SOLUTIONS

- Type of Opening
- Lateral Fastening
- Mounting for Cantilever Parts
- Fastening through the Body
- Cylinder Outside Diameter
- Asymmetric Opening of Minipincers
- Jaw Block
- Shim Kit





Examples of applications



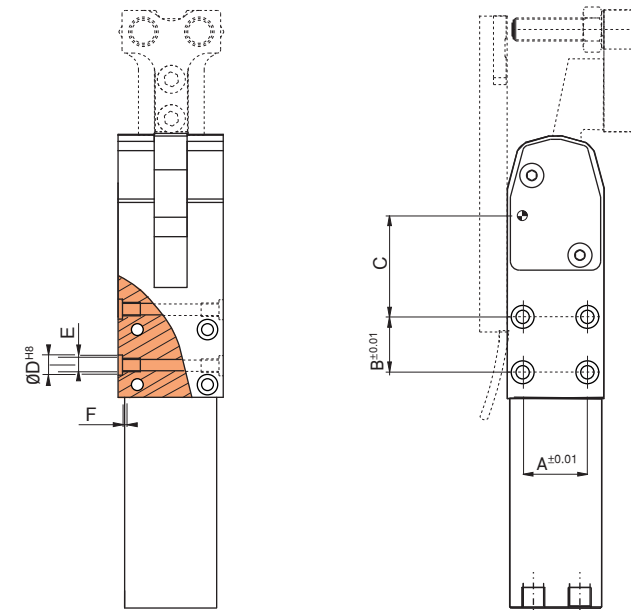
■ TIP-20-15 (EE-010)

■ TI-32-40 (EE-045)

■ TL-32-70 (EE-020)



| TYPE | OPENING |
|--------|---------|
| EE-010 | 10° |
| EE-020 | 20° |
| EE-045 | 45° |



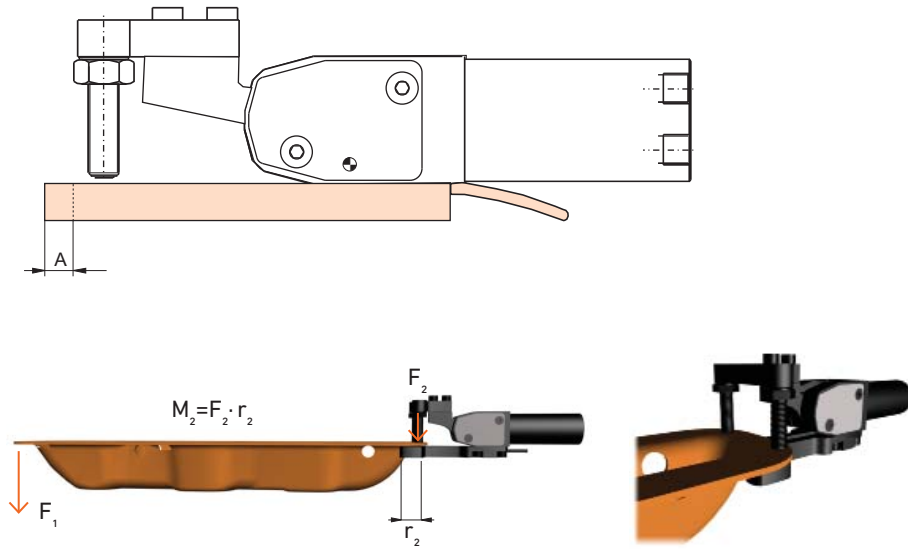
Examples of applications



■ TI-20-15 (EE-201)

■ TL-20-30 (EE-201)

| TYPE | PISTON | A | B | C | ØD | E | F | COMMENTS |
|--------|--------|----|----|----|----|----|-----|--|
| EE-201 | 20 | 24 | 17 | 23 | 7 | M5 | 2.1 | Only available with minipincers TI, TL & TLG |
| EE-321 | 30 | 30 | 25 | 35 | 9 | M6 | 2.1 | |



- Pincers with a higher force and with extended response mountings that can withstand the torque reaction on the pincer should be used when handling cantilever sheets.

Examples of applications

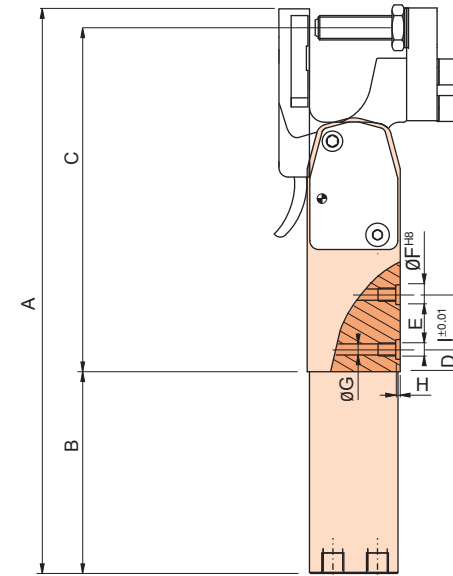


■ TCP-20-15 (EE-0013)

■ TIP-32-70 (EE-0013)

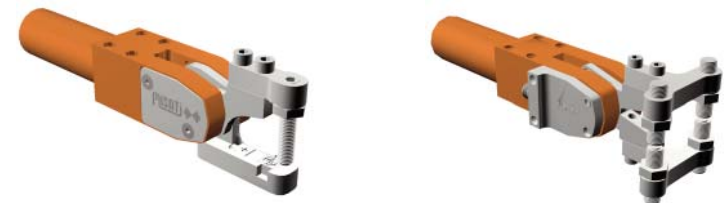
■ TI-20-60 (EE-0013)

| TYPE | A | COMMENTS |
|------|------|---|
| Ø20 | 12.5 | Only available with minipincers TI, TIP & TCP |
| Ø32 | 13.5 | |



- ▶ Bolts included

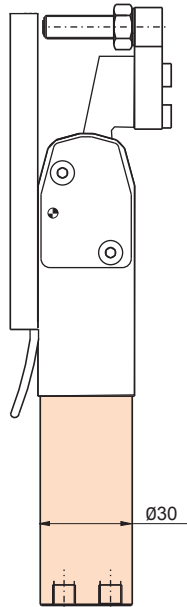
Examples of applications



■ TCP-20-15 (EE-0014)

■ TCG-32-70 (EE-0014)

| TYPE | A | B | C | D | E | ØF | ØG | H | I | COMMENTS |
|------|-----|----|-------|-----|----|----|-----|-----|-------|---|
| Ø20 | 188 | 70 | 11.5 | 7.5 | M5 | 7 | 4.2 | 2.1 | 17X22 | Only available with minipincers TCP & TCG |
| Ø32 | 260 | 91 | 160.4 | 10 | M6 | 9 | 5 | 2.1 | 25X30 | |



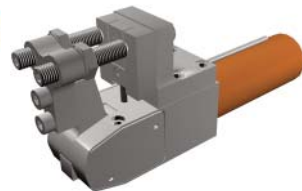
Examples of applications



■ TCP-20-15 (EE-0015)

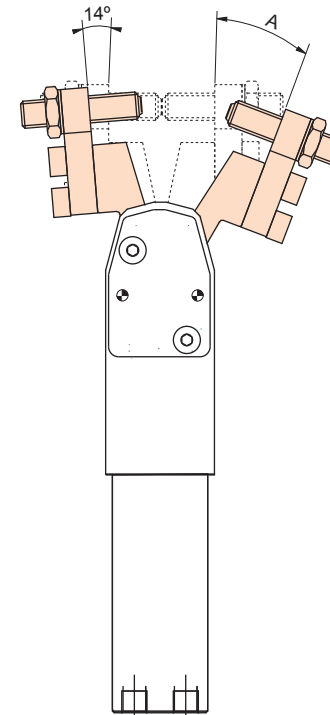


■ TI-20-60 (EE-0015)



■ TL-20-30 (EE-0015)

Only available with ø20 minipincers



Examples of applications

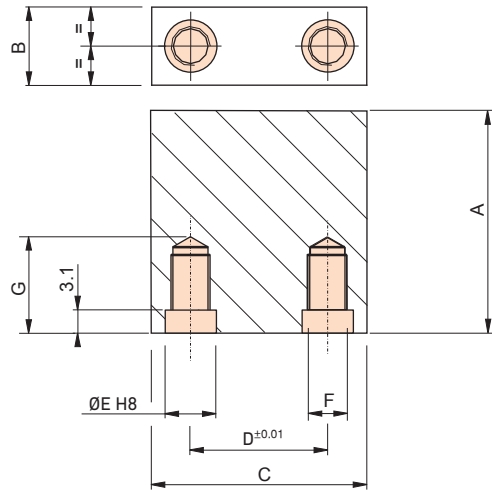


■ TCP-20-15 (EE-0016-07)



■ TCG-32-20 (EE-0016-03)

| TYPE | A | COMMENTS |
|------------|----|---|
| EE-0016-03 | 3° | Only available with minipincers TCP & TCG |
| EE-0016-07 | 7° | |



Area to be machined by the customer according to the surface to fasten.

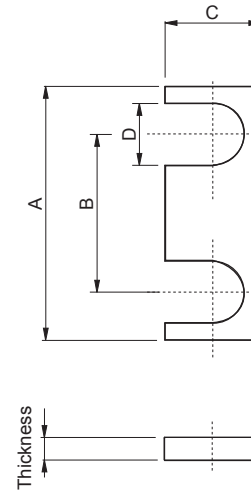


- **Material:** steel
- **Recommended treatment:** quenching & tempering

Examples of applications



| TYPE | A | B | C | D | ØE | F | G |
|----------|----|----|----|----|----|----|----|
| SC-A-20 | 50 | 13 | 30 | 17 | 9 | M6 | 13 |
| SC-A-32 | 35 | 17 | 40 | 23 | 11 | M8 | 17 |
| SC-AL-20 | 50 | 13 | 30 | 17 | 9 | M6 | 13 |
| SC-AL-32 | 70 | 17 | 40 | 23 | 11 | M8 | 17 |



■ GBK-20 ■ GBK-32

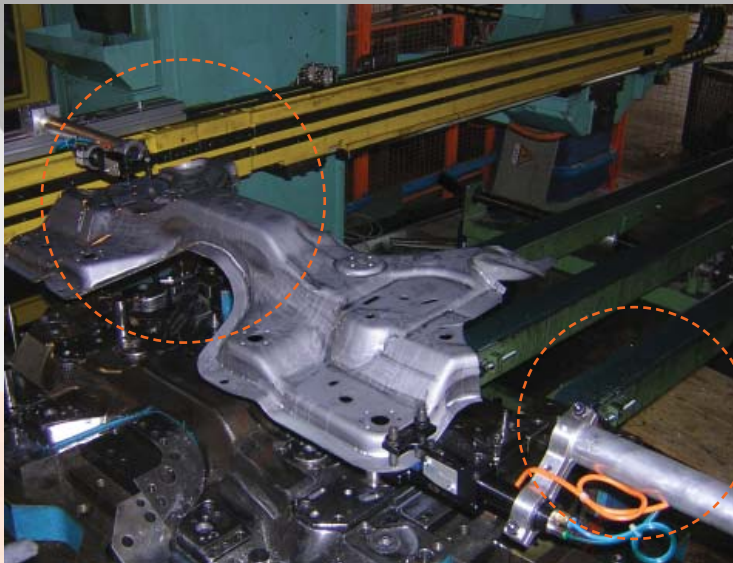
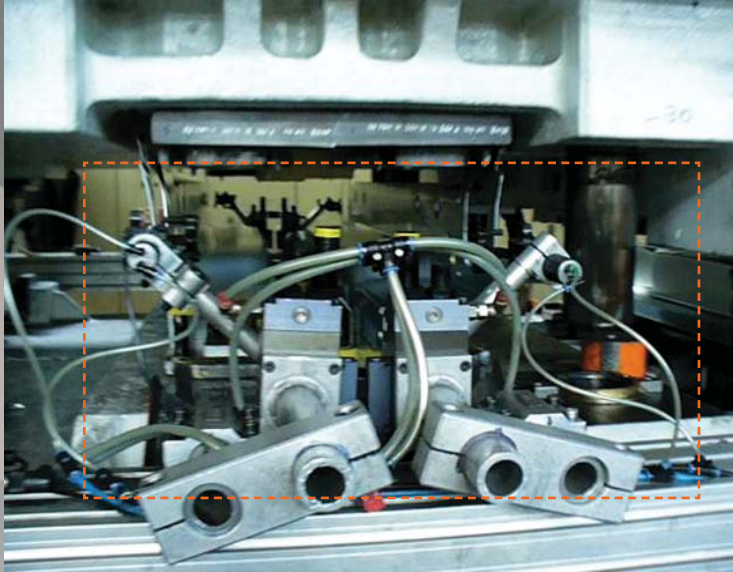
- Adjustment of 0 to 2mm can be made on jaw blocks SC-... (p. 9-09) with the shims in this kit (GBK-...).

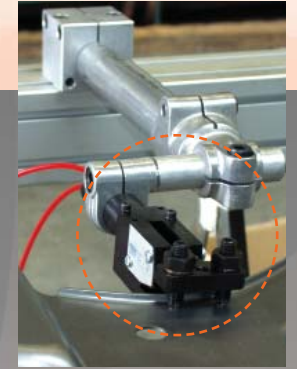
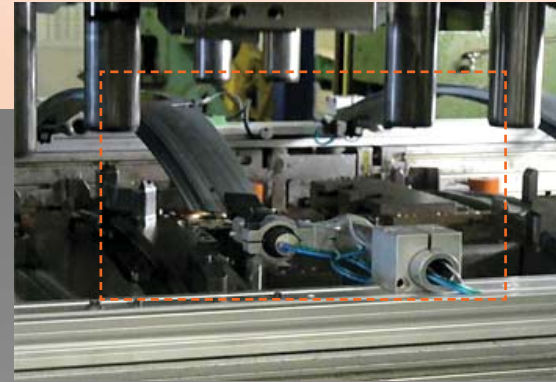
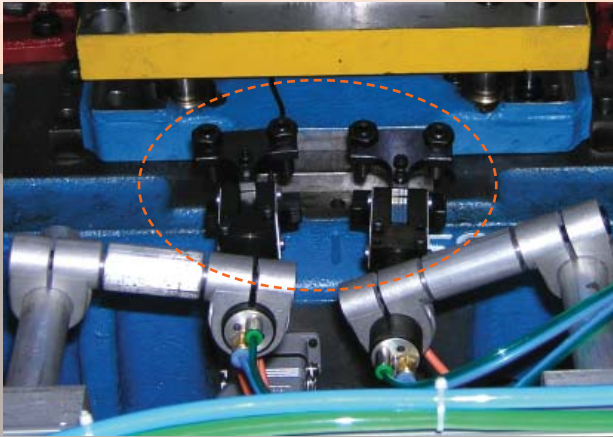
Examples of applications



| TYPE | A | B | C | D | THICKNESS | | | | |
|--------|----|----|----|------|-----------|-----|-----|-----|---|
| GBK-20 | 30 | 17 | 13 | 9.2 | 0.1 | 0.2 | 0.3 | 0.5 | 1 |
| GBK-32 | 40 | 23 | 17 | 11.2 | 0.1 | 0.2 | 0.3 | 0.5 | 1 |

10 APPLICATIONS





DESIGN OF DIES FOR TRANSFER PRESSES
 DESIGN, ASSEMBLY AND ADJUSTMENT OF TRANSFER BARS





2.8 The sheet turns on its transverse shaft 

Las unidades de giro permiten voltear la pieza en un ángulo concreto entre un troquel y el siguiente. Al poder estampar otra cara de la chapa, se simplifica enormemente el troquel.



La unidad de giro rotará la chapa por su centro de giro. Para asegurar la perfecta sujeción chapa, las pinzas se sitúan en el radio necesario del eje de giro.
 En caso de utilizar varias unidades de giro entre troqueles contiguos, deberían alinearse los centros de giro de la chapa. Así se podría prescindir de compensaciones en altura.

4. Fastening Systems for Transfers 

There are different options to handle pieces between the dies of a multi-die press. Naturally, each system has its advantages and disadvantages (see Appendix at the end of this presentation).

| | |
|---|---|
| <p>➤ Handling with shovels:</p>  | <ul style="list-style-type: none"> ➤ Simple system with no pneumatic connections. ➤ Risk of losing position with high accelerations. ➤ To be centred during handling, sheets need to have sharp and stable edges on a horizontal plan. |
| <p>➤ Handling with suction pads:</p>  | <ul style="list-style-type: none"> ➤ You can do without raising the sheet on the die once the piece is stamped. ➤ High energy consumption. ➤ It can only hold the upper and flat side of the sheet. ➤ Low acceleration during handling. |
| <p>➤ Handling with pliers:</p>  | <ul style="list-style-type: none"> ➤ Maximum reliability: total fastening of the piece. ➤ Low energy consumption. ➤ Quick amortization thanks to its low consumption and its higher productivity. ➤ Less initial cost with regard to shovels (11.5%). ➤ Higher initial cost with regard to suction pads (86%). |

Manufacturers of dies, companies stamping metal sheets and engineering firms use this Handbook as a guide because it has some **practical tips** about developing **more productive transfers**.

- The Handbook of Die Design is free to download on www.misati.com



We provide technical training for companies stamping metal sheets and manufacturers of dies.

We focus on production techniques for the following stamping automated processes:

- Transfer Press
- Grips for loading and unloading presses & interpresses



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