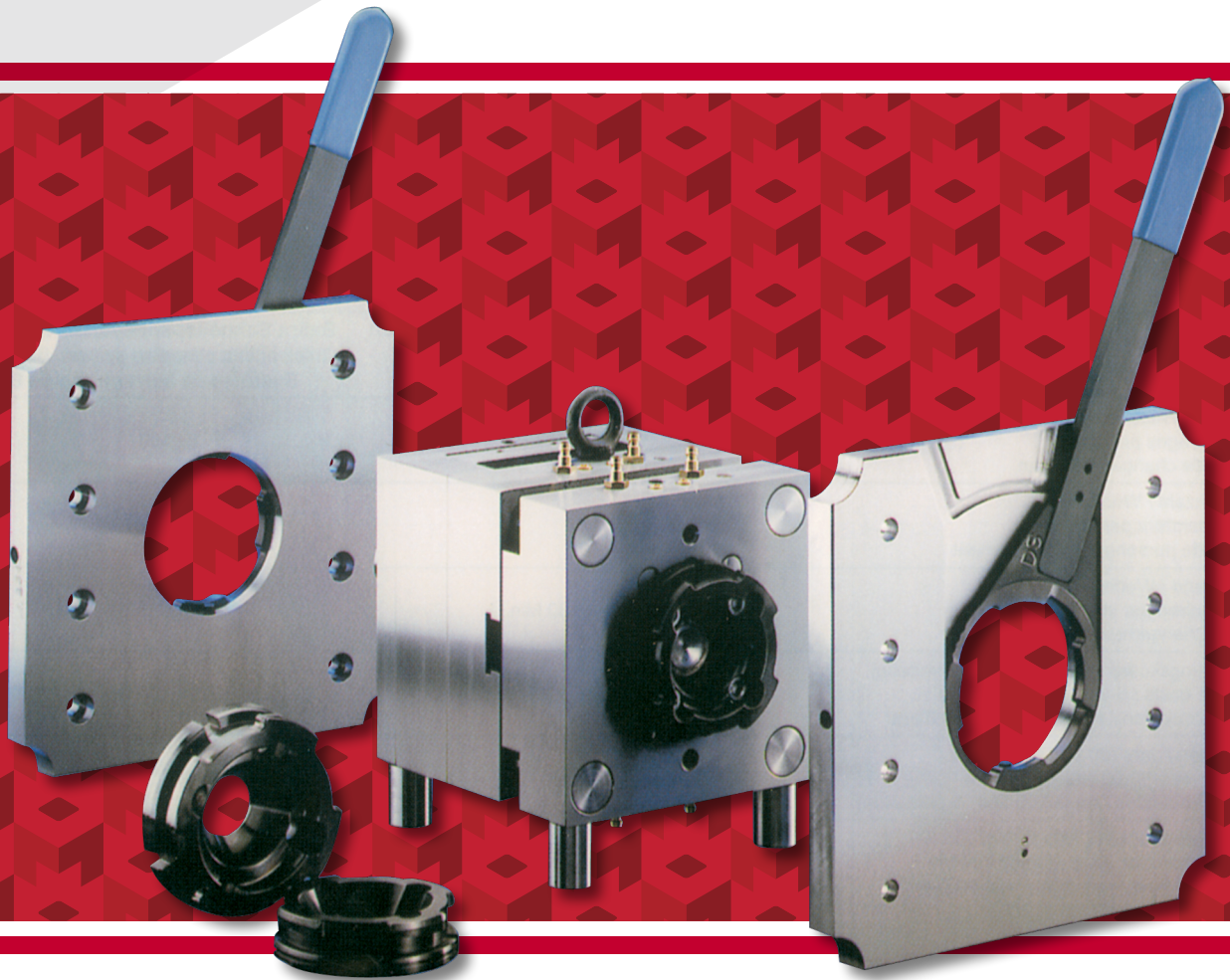




## Quick-action clamping system

**Changing molds like in the old days? Reduce your costs by using D-M-E's Bakra system!**

- Maintenance-free, selflocking bayonet type quick-action clamping system suitable for mold weights up to 1000 kg.
- Multi-purpose application suitable for all horizontal and vertical injection molding machines with 2 or 4 tiebars, as well as barless design up to approx. 1800 kN.
- Quick mold-change without requiring additional tools.
- The system only requires interchanging locating rings on the mold.
- The set also includes compact adapter plates, to be mounted on the machine with thermal insulating sheets and cooling connectors when required.
- Step-by-step refitting of molds and machines possible.

**AT**  
P: 0800 301 060  
F: 0800 401 020  
dme\_oesterreich@milacron.com

**BE**  
P: +32 (0) 15 28 87 30  
F: +32 (0) 15 40 51 17  
dme\_benelux@milacron.com

**CH**  
P: +41 0848 567 364  
F: +41 0848 567 365  
dme\_schweiz@milacron.com

**CZ**  
P: 800 142 451 | +420 572 151 754  
F: 800 142 450 | +420 571 611 996  
dme\_cz@milacron.com

**DE**  
P: 0800 664 82 50 | +49 (0) 2351 437 0  
F: 0800 664 82 51 | +49 (0) 2351 437 220  
dme\_normalien@milacron.com

**ES**  
P: 900 900 342  
F: 900 900 343  
dme\_iberia@milacron.com

**FR**  
P: +33 1 49 93 92 23  
F: +33 1 49 93 92 22  
dme\_france@milacron.com

**HU**  
P: 06 80 205003  
F: +32 15 40 51 17  
dme\_hungary@milacron.com

**IT**  
P: 800 089 734  
F: 800 089 735  
dme\_italy@milacron.com

**NL**  
P: +31 (0) 20 654 5571  
F: +31 (0) 20 654 5572  
dme\_benelux@milacron.com

**PL**  
P: +800 331 1312 | +32 15 21 50 92  
F: +800 331 1313 | +32 15 40 51 92  
dme\_polska@milacron.com

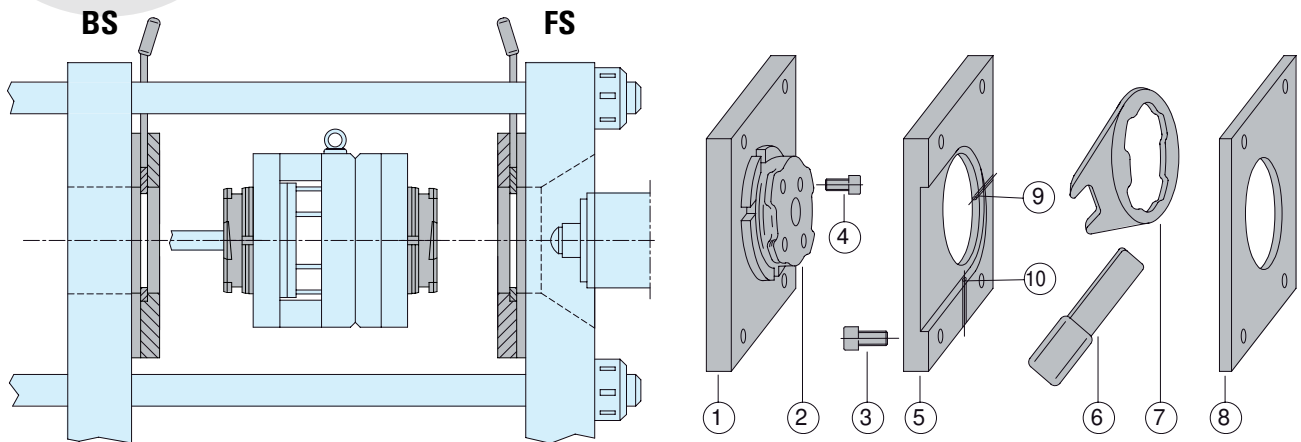
**PT**  
P: 800 207 900  
F: 800 207 901  
dme\_iberia@milacron.com

**SK**  
P: 0800 142 451 | +420 572 151 754  
F: 0800 142 450 | +420 571 611 996  
dme\_cz@milacron.com

**UK**  
P: +44 2071 3300 37  
F: +44 2071 3300 36  
dme\_uk@milacron.com

**Other Countries**  
P: +32 15 28 87 30  
F: +32 15 40 51 17  
dme\_export@milacron.com

## Part List



- 1 Mold Clamping Plate
- 2 Locating Ring
- 3 SHC-screw
- 4 SHC-screw

- 5 Adapter Plate
- 6 Wrench
- 7 Locking Ring
- 8 Thermal Insulating Sheet

- 9 Retention Pin
- 10 Spring Loaded Set screw

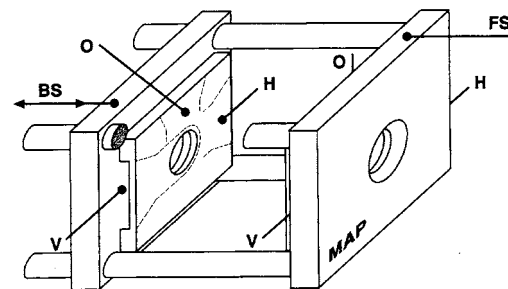
## Cost-efficiency comparison for mold-change on a 1000 kN injection molding machine.

|                                      | Clamp DIN 6316 and clamping screw | Bakra               |
|--------------------------------------|-----------------------------------|---------------------|
| No. of mold changes / year           | 150                               | 150                 |
| No. of operators / change            | 2                                 | 1                   |
| Hours required / change              | 2 x (0,5 h (= 30 Min.))           | 0,083 h (= 5 Min)   |
| Purchase costs / 5-year depreciation | € 400 ( € 80 / a)                 | € 3800 ( € 760 / a) |
| Wages / year (€ 41 / h person)       | € 6150                            | € 512,50            |
| Machine down times / year (€ 51 / h) | € 3825                            | € 637,50            |
| <b>Costs / year</b>                  | <b>€ 10055</b>                    | <b>€ 1910</b>       |
| <b>Savings / year</b>                | <b>81%</b>                        |                     |

## The complete set contains the following items:

- 2 Adapter plates (BS/FS)
- 2 Locking rings (BS/FS)
- 1 Wrench
- 2 Locating rings (BS/FS)

Please specify type of molding machine.  
Insulating sheets upon request.  
Screws are included.



BS = moveable half  
FS = fixed half  
H = rear \*

O = top\*  
V = front\*

\* Please specify side of locking system

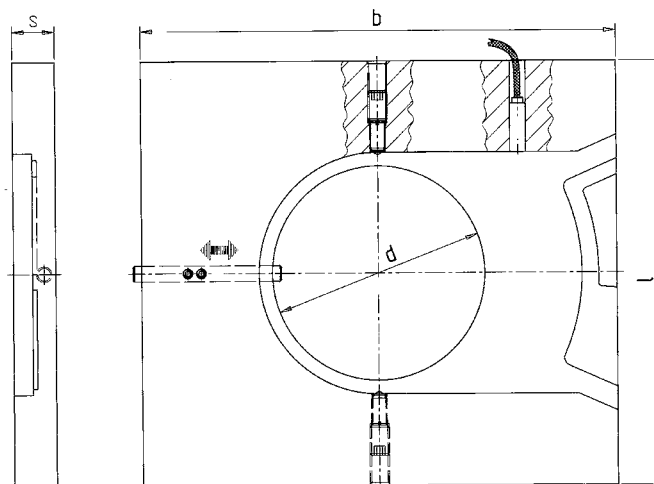
## AD

Adapter plates

Mat.: 1.2312

BS and FS are mirror-inverted

Mold safety device is available as option.



| REF | d   | l x b     | s  | REF | d   | l x b     | s  | REF | d   | l x b     | s  | REF | d   | l x b     | s  |
|-----|-----|-----------|----|-----|-----|-----------|----|-----|-----|-----------|----|-----|-----|-----------|----|
| AD  | 110 | 218 x 246 | 22 | AD  | 110 | 410 x 446 | 22 | AD  | 125 | 218 x 246 | 27 | AD  | 125 | 410 x 446 | 27 |
| AD  | 110 | 246 x 246 | 22 | AD  | 110 | 446 x 446 | 22 | AD  | 125 | 246 x 246 | 27 | AD  | 125 | 446 x 446 | 27 |
| AD  | 110 | 246 x 296 | 22 | AD  | 110 | 496 x 496 | 22 | AD  | 125 | 246 x 296 | 27 | AD  | 125 | 496 x 496 | 27 |
| AD  | 110 | 265 x 396 | 22 | AD  | 110 | 496 x 546 | 22 | AD  | 125 | 265 x 396 | 27 | AD  | 125 | 496 x 546 | 27 |
| AD  | 110 | 280 x 400 | 22 | AD  | 110 | 520 x 520 | 22 | AD  | 125 | 280 x 400 | 27 | AD  | 125 | 520 x 520 | 27 |
| AD  | 110 | 296 x 296 | 22 | AD  | 110 | 530 x 530 | 22 | AD  | 125 | 296 x 296 | 27 | AD  | 125 | 530 x 530 | 27 |
| AD  | 110 | 296 x 346 | 22 | AD  | 110 | 546 x 596 | 22 | AD  | 125 | 296 x 346 | 27 | AD  | 125 | 546 x 596 | 27 |
| AD  | 110 | 346 x 346 | 22 | AD  | 110 | 580 x 580 | 22 | AD  | 125 | 346 x 346 | 27 | AD  | 125 | 580 x 580 | 27 |
| AD  | 110 | 346 x 396 | 22 | AD  | 110 | 596 x 596 | 22 | AD  | 125 | 346 x 396 | 27 | AD  | 125 | 596 x 596 | 27 |
| AD  | 110 | 396 x 396 | 22 | AD  | 110 | 596 x 646 | 22 | AD  | 125 | 396 x 396 | 27 | AD  | 125 | 596 x 646 | 27 |
| AD  | 110 | 396 x 646 | 22 | AD  | 110 | 646 x 646 | 22 | AD  | 125 | 396 x 646 | 27 | AD  | 125 | 646 x 646 | 27 |
| AD  | 110 | 400 x 450 | 22 | AD  | 110 | 646 x 696 | 22 | AD  | 125 | 400 x 450 | 27 | AD  | 125 | 646 x 696 | 27 |
| AD  | 110 | 410 x 410 | 22 | AD  | 110 | 696 x 696 | 22 | AD  | 125 | 410 x 410 | 27 | AD  | 125 | 696 x 696 | 27 |

## SP

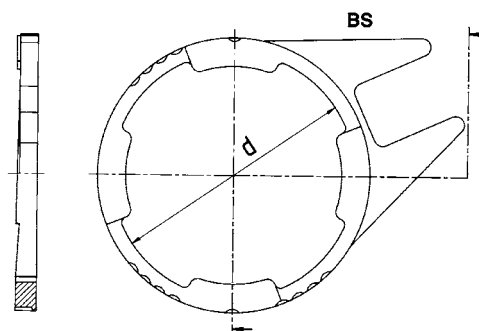
Locking rings

Mat.: 1.2312 ~ 1030 N/mm<sup>2</sup>

BS and FS are mirror-inverted

| REF | d   | Type |
|-----|-----|------|
| SP  | 110 | BS*  |
| SP  | 110 | FS*  |
| SP  | 125 | BS*  |
| SP  | 125 | FS*  |

\*BS = moveable half  
\*FS = fixed half



## SPS

Wrench

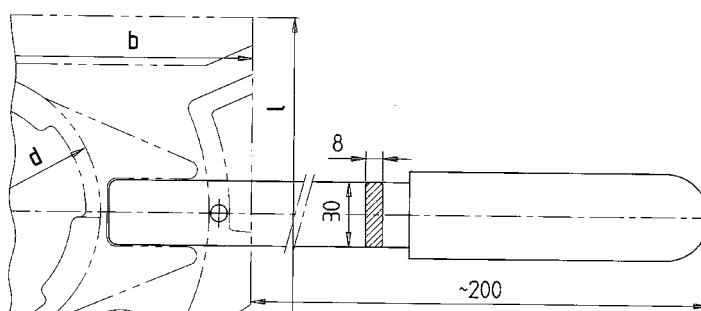
Mat.: St 50

When ordering please specify:

Flange dia., size of adapter plate,

wrench opening, Type of molding

machine.



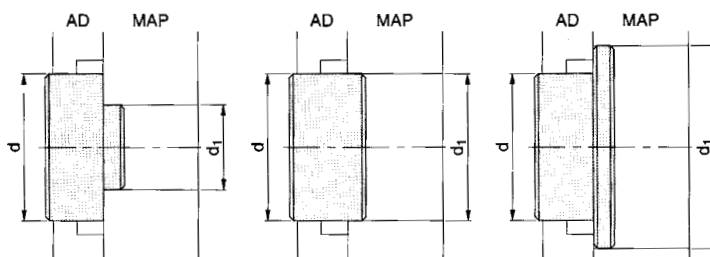
## ZV

Centering Device

Mat.: 1.1730

MAP = Machine plate

| REF | d x d <sub>1</sub> |
|-----|--------------------|
| ZV  | 110 x 60           |
| ZV  | 110 x 80           |
| ZV  | 110 x 90           |
| ZV  | 110 x 100          |
| ZV  | 110 x 110          |
| ZV  | 110 x 125          |
| ZV  | 110 x 160          |
| ZV  | 110 x 175          |
| ZV  | 125 x 60           |
| ZV  | 125 x 80           |
| ZV  | 125 x 90           |
| ZV  | 125 x 100          |
| ZV  | 125 x 110          |
| ZV  | 125 x 125          |
| ZV  | 125 x 160          |
| ZV  | 125 x 175          |



## WP

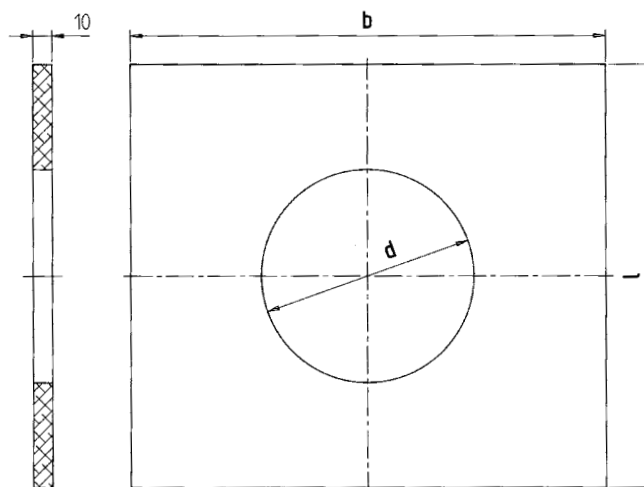
Thermal Insulating sheets

Thermal conductivity  $\lambda$ : 0,2 W/mK

T max: 200°C

Compressive strength (20°C): 600 N/mm<sup>2</sup>

Screw holes and recesses for tiebars will be provided according to your drawing.

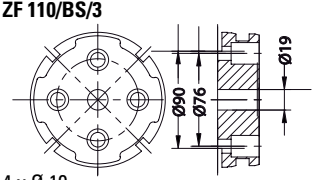
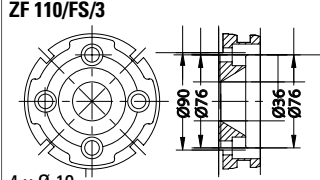
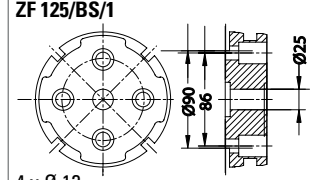
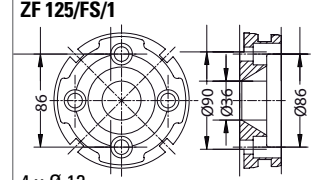
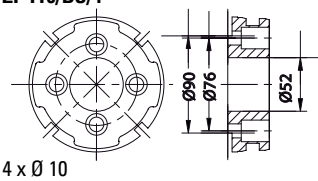
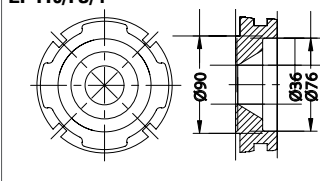
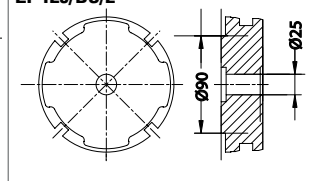
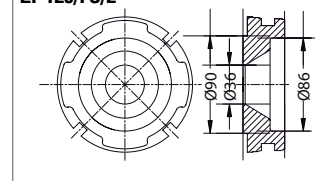
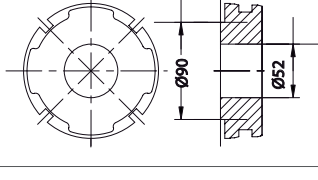
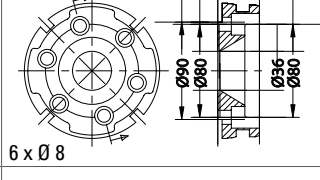
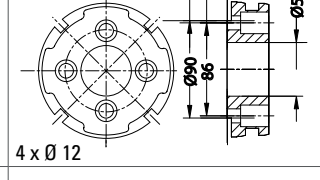
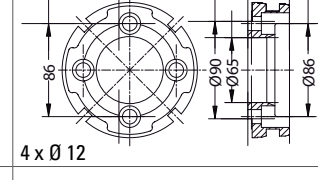
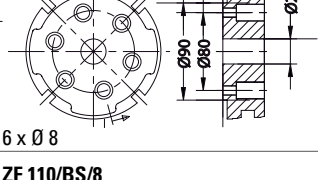
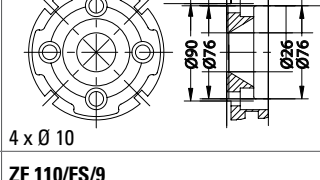
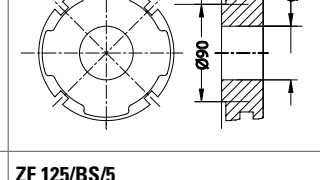
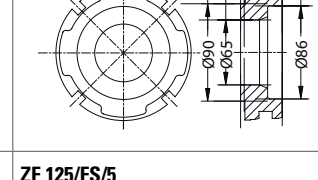
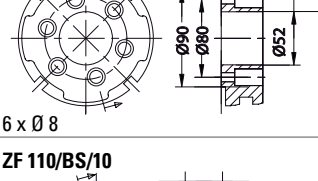
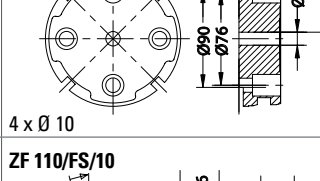
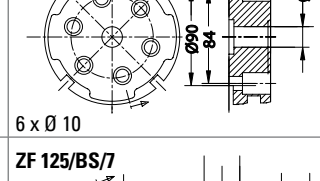
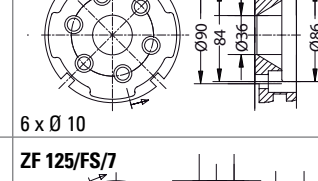
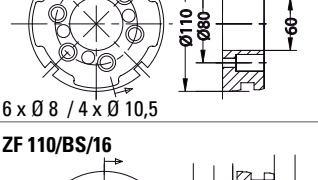
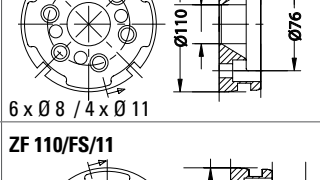
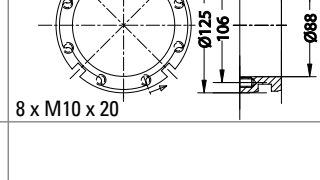
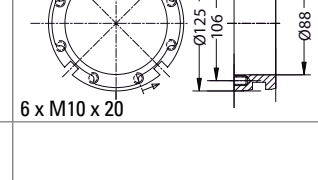
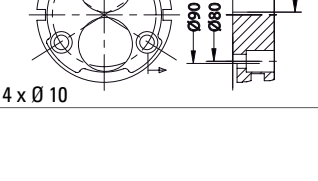
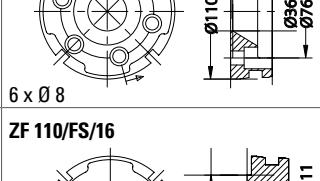
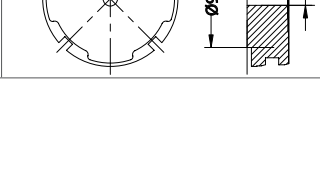


| REF | d   | l x b     | REF | d   | l x b     | s | REF | d   | l x b     | s | REF | d   | l x b     | s |
|-----|-----|-----------|-----|-----|-----------|---|-----|-----|-----------|---|-----|-----|-----------|---|
| WP  | 110 | 218 x 246 | WP  | 110 | 410 x 446 |   | WP  | 125 | 218 x 246 |   | WP  | 125 | 410 x 446 |   |
| WP  | 110 | 246 x 246 | WP  | 110 | 446 x 446 |   | WP  | 125 | 246 x 246 |   | WP  | 125 | 446 x 446 |   |
| WP  | 110 | 246 x 296 | WP  | 110 | 496 x 496 |   | WP  | 125 | 246 x 296 |   | WP  | 125 | 496 x 496 |   |
| WP  | 110 | 265 x 396 | WP  | 110 | 496 x 546 |   | WP  | 125 | 265 x 396 |   | WP  | 125 | 496 x 546 |   |
| WP  | 110 | 280 x 400 | WP  | 110 | 520 x 520 |   | WP  | 125 | 280 x 400 |   | WP  | 125 | 520 x 520 |   |
| WP  | 110 | 296 x 296 | WP  | 110 | 530 x 530 |   | WP  | 125 | 296 x 296 |   | WP  | 125 | 530 x 530 |   |
| WP  | 110 | 296 x 346 | WP  | 110 | 546 x 596 |   | WP  | 125 | 296 x 346 |   | WP  | 125 | 546 x 596 |   |
| WP  | 110 | 346 x 346 | WP  | 110 | 580 x 580 |   | WP  | 125 | 346 x 346 |   | WP  | 125 | 580 x 580 |   |
| WP  | 110 | 346 x 396 | WP  | 110 | 596 x 596 |   | WP  | 125 | 346 x 396 |   | WP  | 125 | 596 x 596 |   |
| WP  | 110 | 396 x 396 | WP  | 110 | 596 x 646 |   | WP  | 125 | 396 x 396 |   | WP  | 125 | 596 x 646 |   |
| WP  | 110 | 396 x 646 | WP  | 110 | 646 x 646 |   | WP  | 125 | 396 x 646 |   | WP  | 125 | 646 x 646 |   |
| WP  | 110 | 400 x 450 | WP  | 110 | 646 x 696 |   | WP  | 125 | 400 x 450 |   | WP  | 125 | 646 x 696 |   |
| WP  | 110 | 410 x 410 | WP  | 110 | 696 x 696 |   | WP  | 125 | 410 x 410 |   | WP  | 125 | 696 x 696 |   |

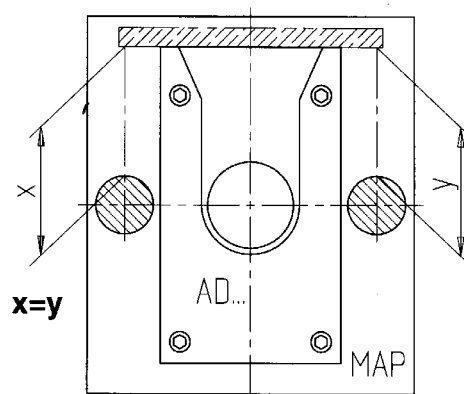
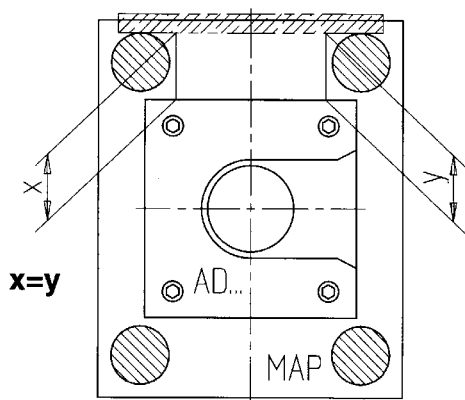
# ZF ...

Locating rings

Mat.: 1.2312 ~ 1030 N/mm<sup>2</sup>

| ZF 110                                                                                                                             |                                                                                                                                  | ZF 125                                                                                                                     |                                                                                                                             |
|------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Moveable half (BS)                                                                                                                 | Fixed half (FS)                                                                                                                  | Moveable half (BS)                                                                                                         | Fixed half (FS)                                                                                                             |
| <b>ZF 110/BS/3</b><br><br>4 x Ø 10                | <b>ZF 110/FS/3</b><br><br>4 x Ø 10              | <b>ZF 125/BS/1</b><br><br>4 x Ø 12       | <b>ZF 125/FS/1</b><br><br>4 x Ø 12       |
| <b>ZF 110/BS/4</b><br><br>4 x Ø 10                | <b>ZF 110/FS/4</b><br><br>4 x Ø 10              | <b>ZF 125/BS/2</b><br><br>4 x Ø 12       | <b>ZF 125/FS/2</b><br><br>4 x Ø 12       |
| <b>ZF 110/BS/5</b><br><br>6 x Ø 8                | <b>ZF 110/FS/6</b><br><br>6 x Ø 8              | <b>ZF 125/BS/3</b><br><br>4 x Ø 12      | <b>ZF 125/FS/3</b><br><br>4 x Ø 12      |
| <b>ZF 110/BS/7</b><br><br>6 x Ø 8               | <b>ZF 110/FS/8</b><br><br>4 x Ø 10            | <b>ZF 125/BS/4</b><br><br>4 x Ø 12     | <b>ZF 125/FS/4</b><br><br>4 x Ø 12     |
| <b>ZF 110/BS/8</b><br><br>6 x Ø 8               | <b>ZF 110/FS/9</b><br><br>4 x Ø 10            | <b>ZF 125/BS/5</b><br><br>6 x Ø 10     | <b>ZF 125/FS/5</b><br><br>6 x Ø 10     |
| <b>ZF 110/BS/10</b><br><br>6 x Ø 8 / 4 x Ø 10,5 | <b>ZF 110/FS/10</b><br><br>6 x Ø 8 / 4 x Ø 11 | <b>ZF 125/BS/7</b><br><br>8 x M10 x 20 | <b>ZF 125/FS/7</b><br><br>6 x M10 x 20 |
| <b>ZF 110/BS/16</b><br><br>4 x Ø 10             | <b>ZF 110/FS/11</b><br><br>6 x Ø 8            |                                                                                                                            |                                                                                                                             |
|                                                                                                                                    | <b>ZF 110/FS/16</b><br><br>4 x Ø 10           |                                                                                                                            |                                                                                                                             |

## Mounting Instructions



1. Mount mold-specific locating rings ZF on the mold.
2. Open injection molding machine, move back injection unit and machine ejector system.
3. Mount thermal insulating sheets WP (if available) onto the adapter plates AD using small SHC-screws.
4. Push back retention pins fixed to the adapter plates.
5. Insert centering device ZV into centering hole Dia. 110 mm or 125 mm of the adapter plates.
6. Position these subgroups according to the markings FS or BS onto the machine plates and mount them with SHC-screws. Don't screw in completely so that adjustment is still possible.
7. Align horizontal position of adapter plates according to sketch above and tighten screws.
8. Remove ZV, if necessary make thread in ZV.
9. In case mold set-up in horizontal direction is required, retention pins located in the adapter plates have to be pushed back.
10. For mold set-up into the molding machine proceed as usual. With mold and machine in closed position, mold must be interlocked at the fixed and moveable half using wrench. Remove wrench from the adapter plate.

