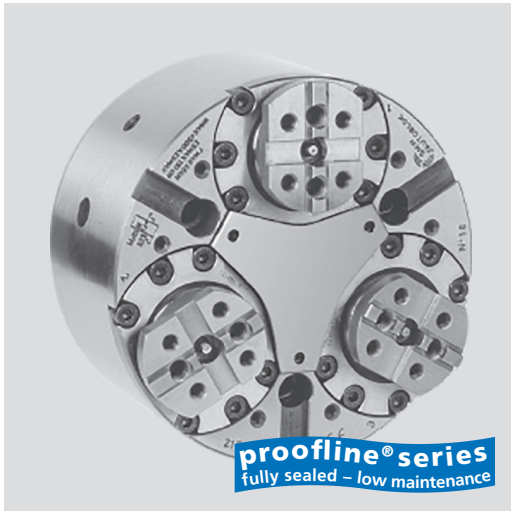


# FRS

Self centering clamping  
TONGUE & GROOVE

## Lever chuck Ø 215 - 365 mm

- Self centering clamping
- Large through-hole
- proofline® chucks = fully sealed - low maintenance



### Application/customer benefits

- Self centering clamping of flange or shaft type workpieces where the reference is not a center but the O.D. of the workpiece
- The through-hole of the chuck allows to swallow the workpiece if needed
- Due to its high rigidity against torsion the chuck can be used for turning as well as for milling

### Technical features

- For O.D. clamping only
- Large through-hole
- Tongue & groove base jaws
- Pull-down to axial datum

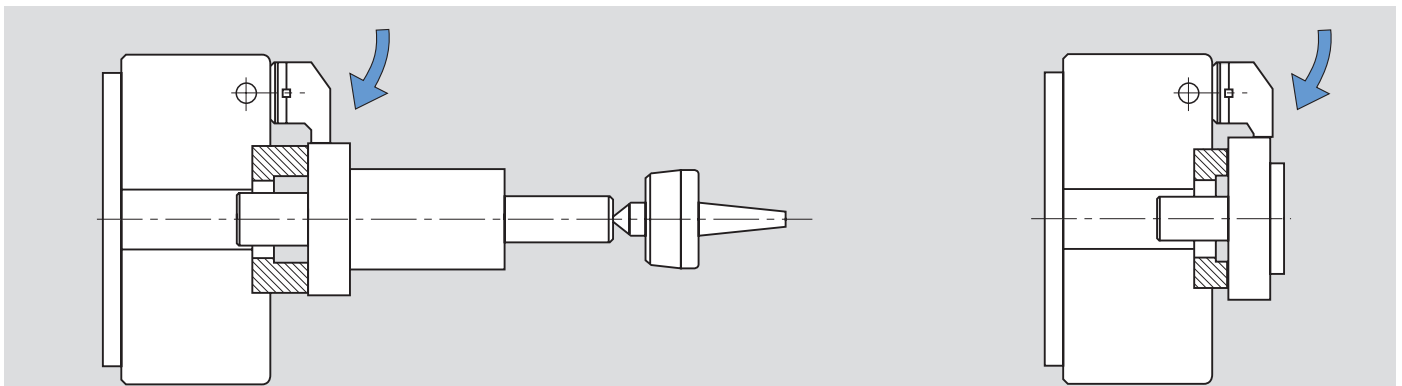
- Permanent grease lubrication
- Rigid design against torsion
- **proofline® chucks** = fully sealed - low maintenance

### Standard equipment

3-jaw chuck  
Mounting bolts

### Ordering example

3-jaw chuck FRS 285 Z 220



#### ■ FRS self centering chuck with pull-down

The pull-down of the chuck pulls the workpiece against the workstop.  
The large bore allows the workpiece to be swallowed.

## Technical data

| SMW-AUTOBLOK Type                    |                   | FRS 215         | FRS 285         | FRS 365         |
|--------------------------------------|-------------------|-----------------|-----------------|-----------------|
| Angular jaw stroke                   | deg.              | 6°              | 6°              | 6°              |
| Radial jaw stroke at distance h      | mm                | 6.3             | 7.3             | 8.4             |
| Wedge stroke                         | mm                | 22              | 26              | 31              |
| Max. draw pull                       | kN                | 45              | 70              | 110             |
| Max. gripping force at distance h    | kN                | 100             | 150             | 240             |
| Max. speed*                          | r.p.m.            | 4500            | 3500            | 2500            |
| Weight (plain back without top jaws) | kg                | 30              | 62              | 120             |
| Moment of inertia                    | kg·m <sup>2</sup> | 0.17            | 0.65            | 2               |
| Recommended actuating cylinders      | Type              | SIN-S 100 - 125 | SIN-S 125 - 150 | SIN-S 150 - 200 |
| Id. No. FRS                          |                   | 77818521        | 77818528        | 77818536        |

\* The above maximum speed is allowed with standard weight / height top jaws and applying the full draw pull only. For more information please contact SMW-AUTOBLOK.



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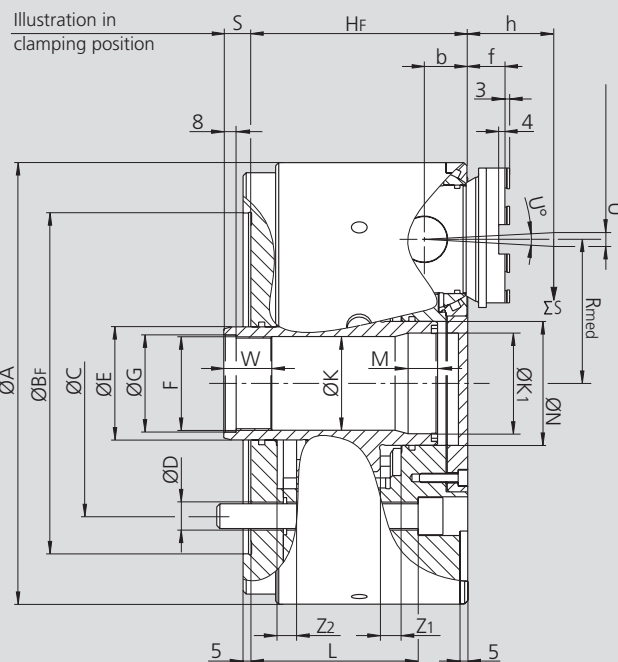
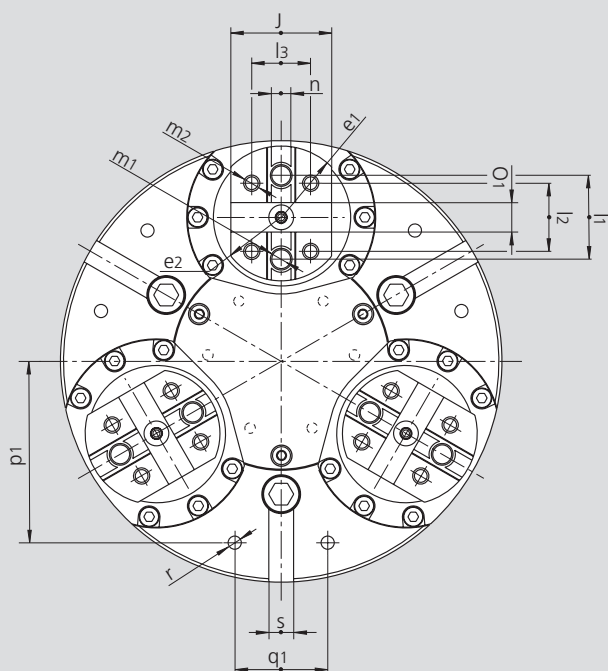
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# Lever chuck Ø 215 - 365 mm

# FRS

- Self centering clamping
- Large through-hole
- proofline® chucks = fully sealed - low maintenance

Self centering clamping  
TONGUE & GROOVE



Subject to technical changes.  
For more detailed information please ask our customer service.

| SMW-AUTOBLOK Type                                 |              | FRS 215 | FRS 285   | FRS 365   |          |
|---|--------------|---------|-----------|-----------|----------|
|   | <b>A</b>     | mm      | 215       | 285       | 365      |
|   | <b>Bf</b> H6 | mm      | 170       | 220       | 300      |
|   | <b>C</b>     | mm      | 133.4     | 171.4     | 235      |
|   | <b>D</b>     | mm      | M12       | M16       | M20      |
|   | <b>E</b>     | mm      | 50        | 73        | 79       |
|   | <b>F</b>     | mm      | M42 x 1.5 | M60 x 1.5 | M68 x 2  |
|   | <b>G</b> H8  | mm      | 43        | 61        | 69       |
| Through-hole                                      | <b>HF</b>    | mm      | 120       | 140       | 168      |
|   | <b>K</b>     | mm      | 40        | 60.5      | 60.5     |
|   | <b>K1</b>    | mm      | -         | 65        | 75       |
|   | <b>L</b>     | mm      | 95        | 108       | 123      |
|   | <b>M</b>     | mm      | -         | 19        | 23.8     |
|   | <b>N</b>     | mm      | 52        | 80        | 90       |
|   | <b>Rmed</b>  | mm      | 67        | 93        | 120      |
| Middle stroke = clamping position                 | <b>S</b>     | mm      | 15.4      | 17.5      | 24.8     |
| Min. / max.                                       | <b>S</b>     | mm      | 4 / 26    | 4 / 30    | 9 / 40   |
| Angular jaw movement                              | <b>U</b> °   | deg.    | 6°        | 6°        | 6°       |
| Radial stroke at distance <b>h</b> <sup>(1)</sup> | <b>U</b>     | mm      | 6.3       | 7.3       | 8.4      |
|   | <b>W</b>     | mm      | 30        | 31        | 30       |
|   | <b>Z1</b>    | mm      | 11.4      | 13.5      | 15.8     |
|   | <b>Z2</b>    | mm      | 10.6      | 12.5      | 15.2     |
|   | <b>b</b>     | mm      | 22        | 28        | 34       |
|   | <b>e1</b>    | mm      | 37.5      | 46        | 50       |
|   | <b>e2</b>    | mm      | 33        | 41        | 50       |
| Reference height                                  | <b>f</b>     | mm      | 18        | 24        | 21       |
|   | <b>h</b>     | mm      | 38        | 42        | 46       |
|   | <b>j</b>     | mm      | 55        | 65        | 70       |
|   | <b>l1</b>    | mm      | 38        | 54        | 63.5     |
|   | <b>l2</b>    | mm      | 32        | 44        | 48       |
|   | <b>l3</b>    | mm      | 32        | 38        | 48       |
| Thread / depth                                    | <b>m1</b>    | mm      | M12 / 16  | M16 / 20  | M16 / 20 |
| Thread / depth                                    | <b>m2</b>    | mm      | M10 / 14  | M12 / 19  | M12 / 19 |
|   | <b>n</b> h8  | mm      | 7.94      | 12.7      | 12.7     |
|   | <b>o1</b> H7 | mm      | 12.68     | 19.03     | 19.03    |
|   | <b>p1</b>    | mm      | 80        | 117       | 150      |
|   | <b>q1</b>    | mm      | 45        | 60        | 80       |
| Thread / depth                                    | <b>r</b>     | mm      | M8 / 17   | M10 / 19  | M12 / 22 |
|   | <b>s</b> H8  | mm      | 16        | 16        | 20       |

<sup>(1)</sup> Calculated at **h** distance from the chuck's face (where normally the clamping takes place).