



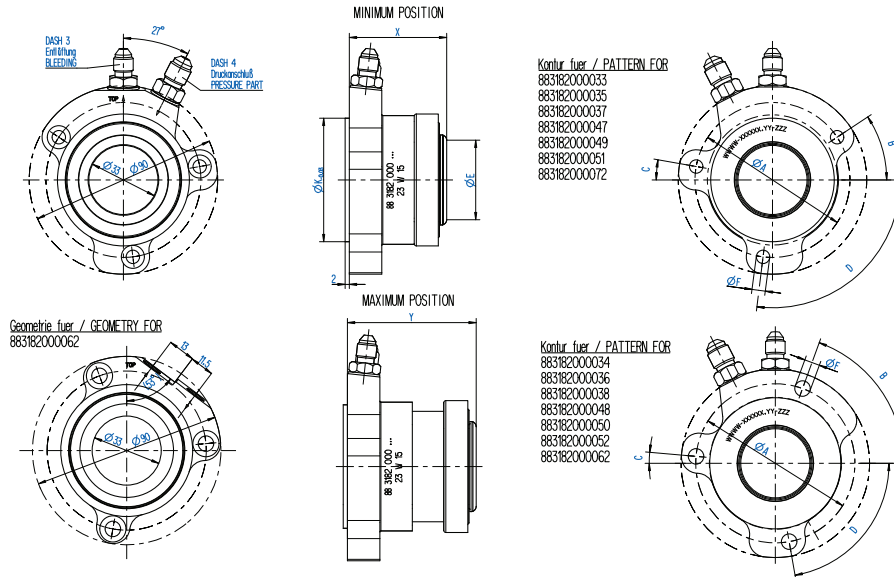
# Racing Clutch System

*motorsport*



# Concentric Slave Cylinder

We offer a specially developed and designed Concentric Slave Cylinder (CSC) for push-type actuation of RCS clutches.



Advantages

The one-piece housing ensures maximum strength and zero leakage. The release bearing is engineered for the extreme rpm of race engines, with slave cylinders matched to ZF motorsport RCS clutches and available in three diameters:  
Ø 38 mm | Ø 44 mm | Ø 49 mm

A special coating and sealing system guarantee optimal friction performance. While racing clutches require higher release forces, ZF’s racing-specific slave cylinder provides increased hydraulic volume, reducing pedal effort. The cross-sectional area is 820.7 mm²

Available with multiple connection geometries and two stroke options.

|       |                                     |
|-------|-------------------------------------|
| i     |                                     |
| A     | Pitch circle fixation holes         |
| B/C/D | Angle fixation holes                |
| E     | Release diameter (contact diameter) |
| F     | Diameter fixation holes             |
| K     | Centering diameter                  |
| X     | CSC in compression                  |
| Y     | CSC in rebound                      |
| *)    | Hydraulic-adapter not included      |

| Part Number     | A<br>[mm] | B<br>[°] | C<br>[°] | D<br>[°] | E<br>[mm] | F<br>[mm] | K<br>[mm] | X<br>[mm] | Y<br>[mm] | Stroke<br>[mm] | Replacement for |
|-----------------|-----------|----------|----------|----------|-----------|-----------|-----------|-----------|-----------|----------------|-----------------|
| 883182000033    | 74        | 33.5     | 10       | 97       | 38        | 6.6       | 58.99     | 46.5      | 61.5      | 15.0           |                 |
| 883182000034    | 76        | 70       | 5        | 80       | 38        | 7.2       | 62.65     | 46.5      | 61.5      | 15.0           |                 |
| 883182000035    | 74        | 33.5     | 10       | 97       | 44        | 6.6       | 58.99     | 46.5      | 61.5      | 15.0           |                 |
| 883182000036    | 76        | 70       | 5        | 80       | 44        | 7.2       | 62.65     | 46.5      | 61.5      | 15.0           |                 |
| 883182000037    | 74        | 33.5     | 10       | 97       | 49        | 6.6       | 58.99     | 47.0      | 62.0      | 15.0           |                 |
| 883182000038    | 76        | 70       | 5        | 80       | 49        | 7.2       | 62.65     | 47.0      | 62.0      | 15.0           |                 |
| 883182000047    | 74        | 33.5     | 10       | 97       | 38        | 6.6       | 58.99     | 43.3      | 55.3      | 12.0           |                 |
| 883182000048    | 76        | 70       | 5        | 80       | 38        | 7.2       | 62.65     | 43.3      | 55.3      | 12.0           |                 |
| 883182000049    | 74        | 33.5     | 10       | 97       | 44        | 6.6       | 58.99     | 43.3      | 55.3      | 12.0           |                 |
| 883182000050    | 76        | 70       | 5        | 80       | 44        | 7.2       | 62.65     | 43.3      | 55.3      | 12.0           |                 |
| 883182000051    | 74        | 33.5     | 10       | 97       | 49        | 6.6       | 58.99     | 43.8      | 55.8      | 12.0           |                 |
| 883182000052    | 76        | 70       | 5        | 80       | 49        | 7.2       | 62.65     | 43.8      | 55.8      | 12.0           |                 |
| 883182000062 *) | 76        | 70       | 5        | 80       | 49        | 7.2       | 62.50     | 43.8      | 55.8      | 12.0           |                 |
| 883182000072    | 74        | 33.5     | 10       | 97       | 38        | 6.6       | 58.99     | 50.0      | 62.0      | 15.0           | 883182999546    |

# Preloaded CSC

Designed and developed to extend the lifetime of the ring piston and the spring tabs and to keep the performance of your clutch system on the same level from the very first day.

## Advantages

To minimise wear on the contact surfaces between the release ring and spring tabs and extend the service life of both components, the slave cylinder should always be in contact with the diaphragm spring of the clutch and run with it. The reason for this is to minimise wear on the contact surface between the release ring and the spring tabs and to extend the service life of both components. We offer the solution with our slave cylinder with preload spring.

The preload spring of the CSC is used to maintain a constant pressure on the diaphragm spring. The ability to customise the spring force ensures optimum preload over the entire working range of the slave cylinder for every application. The oscillations and vibrations in the vehicle caused by pressure losses in the pre-pressure valves are prevented by the upgrade to the pre-load spring, as this acts directly on the ring piston of the slave cylinder. This results in reduced wear due to the prevention of relative speeds between the clutch and release bearing.



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Have we piqued your interest? Our technical advisors will help you select the right solution for your application from a wide range of existing variants.

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# Ring Piston Assembly

ZF motorsport offers ring piston assemblies as spare parts for RCS slave cylinders. The ring pistons are built up of an aluminium piston, the bearing and integrated release ring.

## Technical Specifications

The contact diameter of the ring pistons are specially adjusted to the contact diameter of our RCS clutches.

Available in three different contact diameters:  
Ø 38 mm | Ø 44 mm | Ø 49 mm

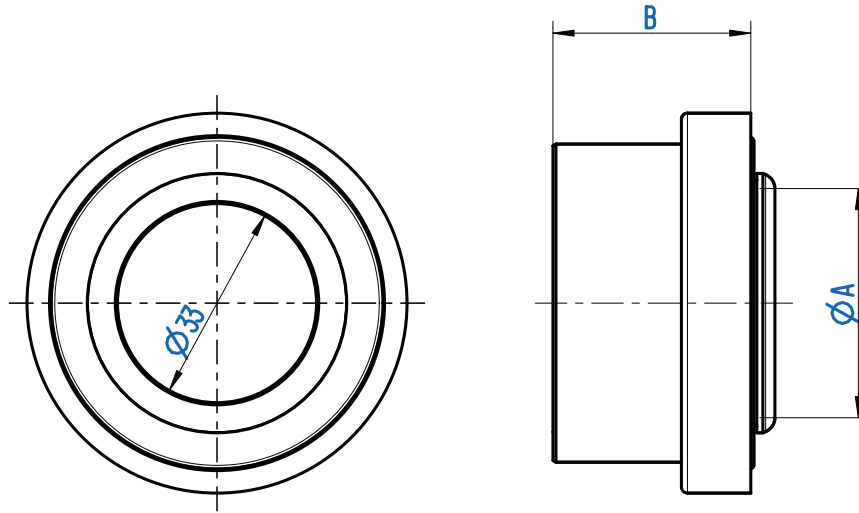
Available in two different lengths related to the defined working range of 12 mm stroke or 15 mm stroke.

## Robustness

The bearing is caulked into the piston. This prevents detachment of the bearing due to different thermal expansions.

Old bearings can be replaced if the concentric slave cylinder is still operating effectively.





| Part Number  | A<br>[mm] | B<br>[mm] | Designed for Slave Cylinder                                        |
|--------------|-----------|-----------|--------------------------------------------------------------------|
| 003158000017 | 49.0      | 29.6      | 8831820000 <b>51</b>   8831820000 <b>52</b>   8831820000 <b>62</b> |
| 003158000019 | 49.0      | 32.8      | 8831820000 <b>37</b>   8831820000 <b>38</b>                        |
| 003158000020 | 44.0      | 29.6      | 8831820000 <b>49</b>   8831820000 <b>50</b>                        |
| 003158000021 | 44.0      | 32.8      | 8831820000 <b>35</b>   8831820000 <b>36</b>                        |
| 003158000022 | 38.0      | 29.6      | 8831820000 <b>47</b>   8831820000 <b>48</b>   8831820000 <b>94</b> |
| 003158000023 | 38.0      | 32.8      | 8831820000 <b>33</b>   8831820000 <b>34</b>   8831820000 <b>72</b> |

A = Contact Diameter