

Sealing systems for trenchless pipe jacking

Trenchless pipe jacking is a special construction method to lay or replace sewage and other pipes of all diameters underground and on target.

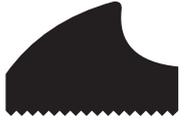
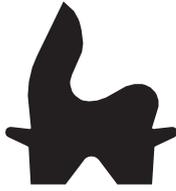
Underground pipe jacking is nowadays the solution in the case of high traffic volumes, narrow building sites and/or building structures worthy of protection.

Cordes offers a variety of safe sealing systems not only for jacking pipes and intermediate jacking stations, various special sealing systems are stocked and made to measure for jacking machines/TBM.



1. Main seals

Main seals seal the jacking pipes with each other in a reliable and long-lasting way. They are mounted to the spigot and seal against internal and external pressures under the steel collar.

<p>CK-seals (wedge-shaped sliding seals)</p>	
<p>BK-rolling rings (O-ring-seals)</p>	
<p>Piston seals-KDA</p>	

2. Secondary seals

PN-profiles are compression seals which are successfully used as secondary and internal joint seals in pipe jacking.

Benefits

PN-profiles are elastic seals of inner pipe joints in sewer lines. The use of **PN-profiles** prevents foreign material entering the joint area during the jacking process. If the specified joint tolerances are observed the PN-profile results in an effective second seal in the pipe connection is available after the jacking process.

PN-profiles as secondary seals provide for more security, but do not replace the main/primary seal of the pipe connection.

PN-profiles comply with the requirements of EN 681-1 and EN 681-3.

Assembly

The **PN profile** is fastened with the plate to the internal diameter of the compression wood transfer ring and grouted between the pipe front surfaces upon insertion.

Dimensioning is based on the internal joint gap sizes to be expected.



Fig.: **PN-ZG** as secondary seal

Material

The seals are made of Ethylene-Propylene-Diene rubber (EPDM) or Styrene-Butadiene rubber (SBR). Due to their excellent properties the use of EPDM and SBR has proven to be successful in rainwater and wastewater applications.

Note: We recommend using seals made of Nitrile-Butadiene rubber (NBR) for applications involving mineral fuels such as oils, petrol or similar.

Jacking seal **PN-ZG**

H
17.0
30.0
40.0
50.0



Jacking seal **PN-H-50**

H
50.0



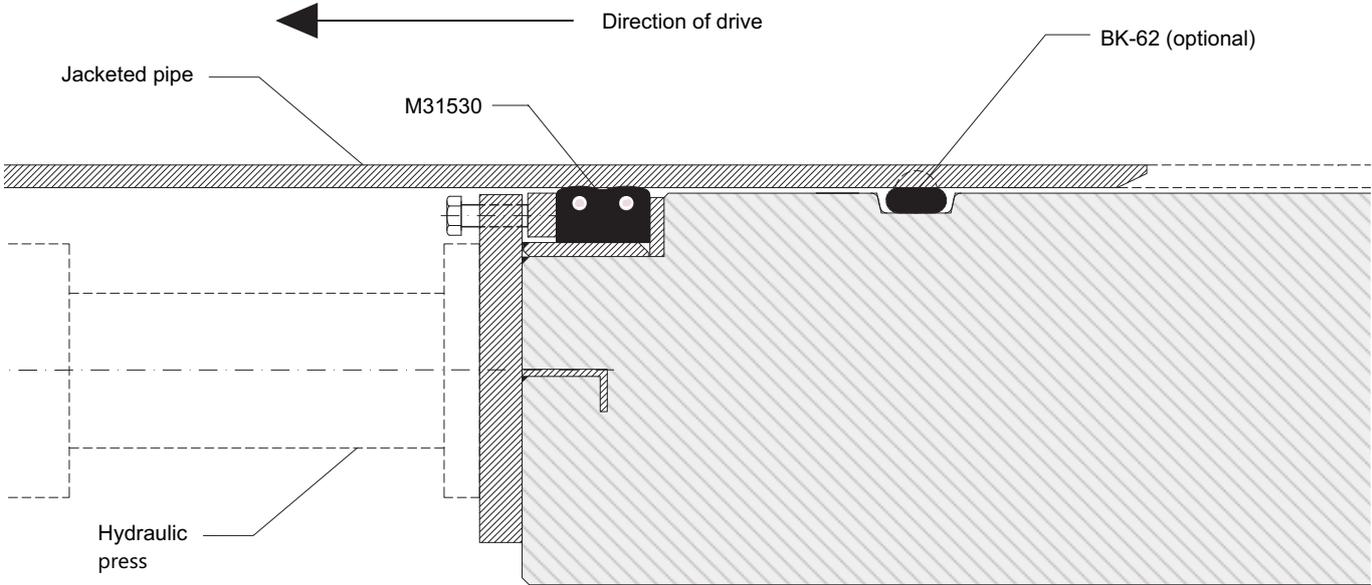
Jacking seal **PN-28-NBR**

H
28.0



The sealing systems used in intermediate jacking stations are exposed to special requirements. Stress caused by wear must be considered in particular. In our opinion, there is no room for compromises regarding quality in this regard.

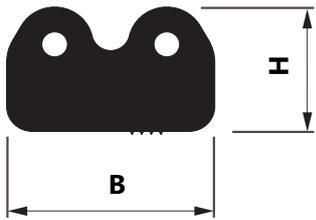
All Cordes sealing systems for intermediate jacking stations are therefore in general fabricated from especially optimized Styrene-Butadiene rubber (SBR) optimised for the application.



Seal for intermediate jacking station **M-31530** (adjustable joint seal)

M-31530

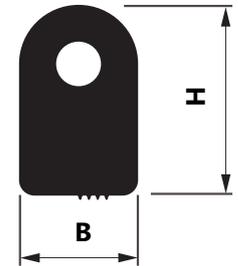
H	B
40.0	65.0



Seal for intermediate jacking station **M-31539** (adjustable joint seal)

M-31539

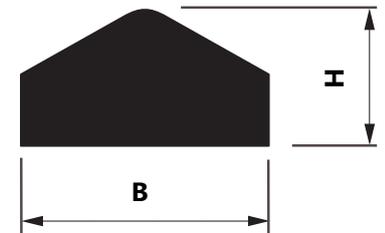
H	B
65.0	40.0



Seal for intermediate jacking station **M-31944** (roof profile)

M-31944

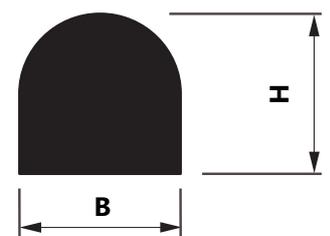
H	B
26.0	46.0



Seal for intermediate jacking station **M-32004** (IS profile)

M-32004

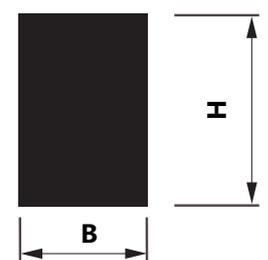
H	B
32.0	32.0



Seal for intermediate jacking station **M-31930** (rectangular profile)

M-31930

H	B
60.0	40.0



Contents such as technical specifications, values, and dimensions are given to the best of our knowledge, however, without any guarantee and liability. If not specified otherwise, dimensions are given in millimetres. Our General Terms and Conditions shall apply.

