

INOflex[®] INOshaft CPH

INOshaft CPH Hybrid shafts are part of the INOflex[®] product line - specifically designed for flexo printing. The INOshaft CPH is able to mount pneumatic or hydraulic adapters. Together with INObridge CFRP adapters, they ensure a stable and profitable printing process. INOshaft CPH achieves accurate print results at high speeds and will completely leverage your machine's performance. INOshaft CPH CFRP shafts reduce vibrations and keep the bouncing to a minimum.



MADE IN GERMANY

APPLICATION

- For pneumatically and hydraulically clamping adapters and sleeves in all common sizes

DIMENSION*

- Sleeve diameter Stork 290-540
- Clamping diameter 85-180 mm

DIAMETER TOLERANCE

- $\leq 15 \mu\text{m}$

RUN OUT

- $\leq 10 \mu\text{m}$

PRINTING SPEED

- Up to 800 m/min

AIR QUANTITY

- 6-10 bar compressed air
- ≥ 12 liters/sec

REGISTRATION

- Stainless steel register
- Stop edge

CLAMPING RATE

- 150 μm (standard for common press manufactures)

TORQUE TRANSMISSION

- ≥ 300 Nm

ADVANTAGES VS. STEEL SHAFTS

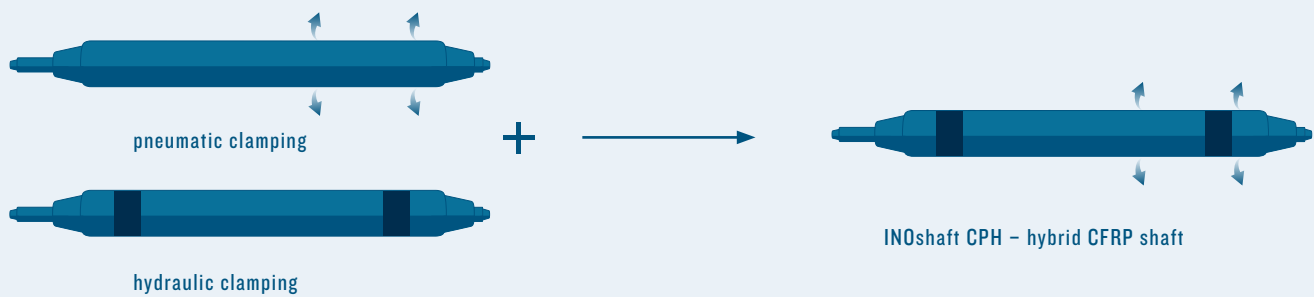
- performance- and weight advantage about 45%
- increase in stiffness up to 30% reduces open print images
- system reduces vibrations up to 50% - minimizes bounce for uniform and consistend print images
- Reduction of the moment of inertia of more than 50% enables a quickly achive of printing speed and the protection of the drive unit

CHARACTERISTICS AT A GLANCE

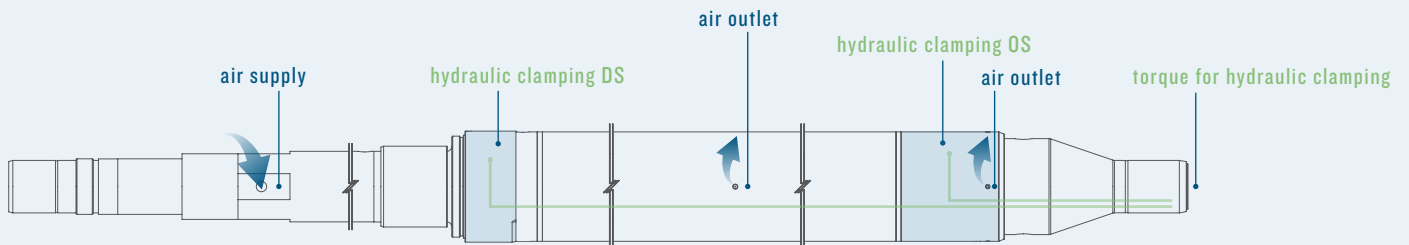
- Excellent stiffness / weight ratio due to the use of CFRP
- High flexibility due to hybrid clamping technology (pneumatic and hydraulic)
- Extremely stiff clamping between shaft and hydraulic adapter
- Fluid damping absorbs vibrations
- Maintenance-free closed hydraulic system
- Clamping rate can be adjusted
- Wear resistant PROTEK[®] coating
- direct delivery to end users incl. assembly possible
- smaller print formats at higher print widths possible (in combination with INObridge CH with smallest wall thickness)

INOflex[®] INOshaft CPH

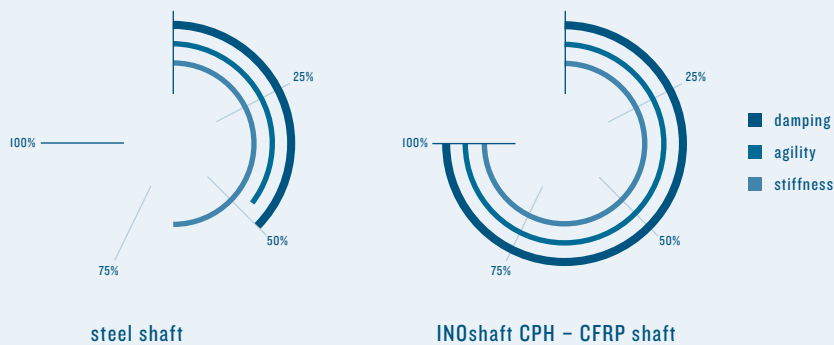
COMPOSITION HYBRID CLAMPING



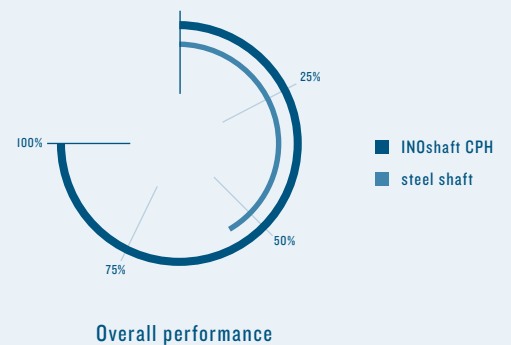
EXPLANATION HYBRID CLAMPING



COMPARISON: STEEL- AND CFRP SHAFT



OVERALL PERFORMANCE



INOshaft CPH shafts achieve a weight and performance advantage of around 45% compared to steel.

INOflex[®] INOshaft CP

The INOflex[®] CFRP air shafts stand for the highest performance in the flexographic printing. In combination with the INOflex[®] CFRP bridge adapters, they will secure a stable and profitable printing process. Machine vibrations force the printer to maintain or even reduce the operating speeds. With our INOflex[®] CFRP air shafts, precise print results can be attained even at high speeds, the number of readjustments minimized, and the options your machine offers fully utilized.



MADE IN GERMANY

APPLICATION

- For adapters and plate mounting sleeves in all common sizes, face length and for all printing machines

DIAMETER TOLERANCE

- OEM specification
- According to DFTA recommendation (0 / +0.015 mm)
- Customer-specific

FORM AND POSITION TOLERANCES

- OEM specification
- According to DFTA recommendation
- Customer-specific

AIR QUANTITY

- ≥ 12 liters/sec
- 6–8 bar compressed air

AIR SUPPLY

- OEM specification
- According to DFTA recommendation
- Customer-specific
- Optional ball valves

REGISTRATION

- OEM specification
- According to DFTA recommendation
- Customer-specific

TEMPERATURES

- Applications up to 60° C

SURFACE

- PROTEK[®] 3340, composite coating
- Complies with the ATEX 2014/34/EU
- Rz 4–8 μm

CLEANING

- For cleaning, we recommend BioClean 2000 from our INOcare product range
- Resistant to conventional solvents from the flexographic printing

CHARACTERISTICS AT A GLANCE

- Significant weight reduction, and a superior rigidity at the same time
- Excellent damping properties and reduction of vibrations
- Reduction of the deformation, and thus a significantly stiffer overall system
- Precise print results, particularly at high speeds
- In conjunction with the optimized CFRP laminate structure this provides the minimal total degree of deformation.
- Integrated damping system in order to reduce vibrations
- Full utilization of the machines performance