Design 2.0

Dry Disconnect Coupling





MannTek

DESIGN 2.0 - A NEW STATE OF THE ART DDC

New Design Language

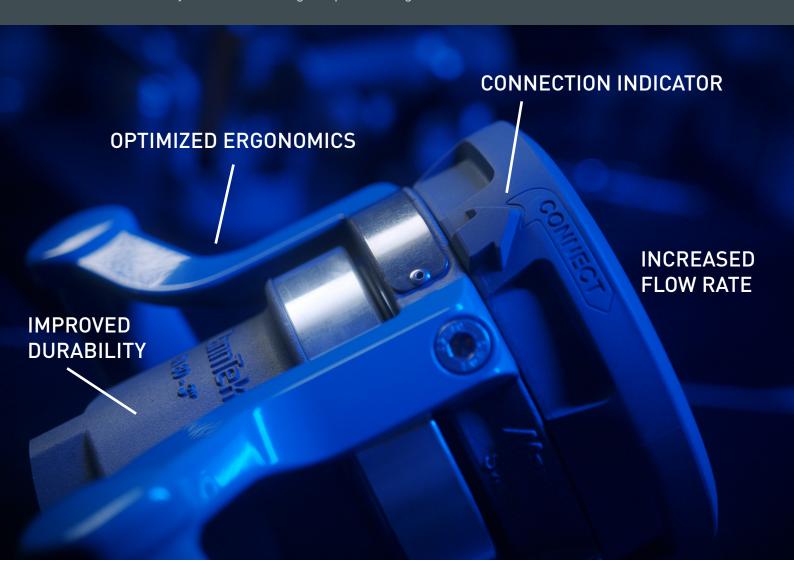
- Design based on handling and ergonomics
- Integrated shape of body, handles and bumper
- Bumper with guidance covering the roll axles
- Detail finish by new manufacturing methods
- Cylindrical handle interface reduces volume

New Market Leading Performance

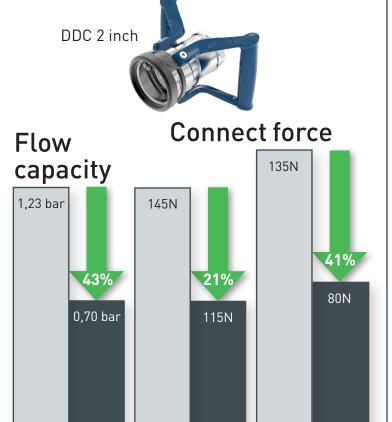
- Up to 43% improved flow capacity
- Up to 55% reduction of coupling force
- Leading user ergonomics through force reduction and optimized handle design

Major Customer Benefits

- More convenient handling with reduced stress on muscles and joints
- Improved flow rate means shorter loading time and reduced energy consumption
- Increase of durability, through force reduction and new materials
- MannTek's easy-to-service design kept unchanged!



This diagram illustrates the performance improvements, measured in percentages, between our established coupling 1.0 and the new Design 2.0. The enhanced design has resulted in a significant improvement, with performance gains above 40% for flow capacity and above 55% for connect forces.



DDC 1.0 DDC 2.0

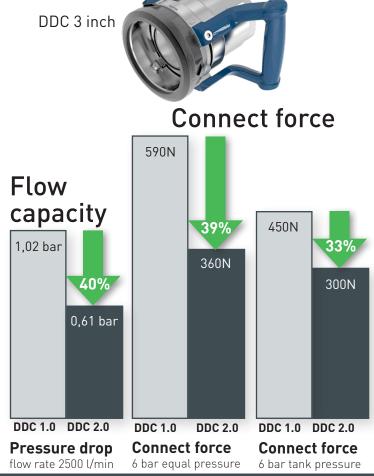
Connect force

6 bar equal pressure

DDC 1.0 DDC 2.0

Pressure drop

flow rate 800 l/min



INTEGRATED PRODUCT DESIGN FOR SUPREME PERFORMANCE AND HANDLING

DDC 1.0 DDC 2.0

Connect force

6 bar tank pressure

With experience of more than one million couplings delivered over 25 years, MannTek decided to set a new standard for DDC couplings. The Original Design 1.0 is known for it's highly competitive performance and is well-regarded worldwide. The new Design 2.0 is a careful evolutionary redesign, based on results from field studies and user tests.

With Design 2.0 both flow capacity and user ergonomics have been improved to a new state of the art level. The flow capacity is increased above 40% through design optimisation, and has been verified in a number of incremental flow rate simulations.

The ergonomics are improved on a number of points:

- Clear visual indicators for easier alignment
- Connect forces reduced up to 55%
- New handle design offers a more convenient, balanced and effective handling, beside a more compact rotation volume
- Design 2.0 offers more optional feature combinations like sensors, locking device, stop before disconnect etc.



