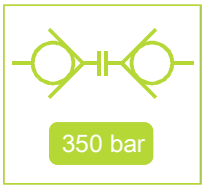
Fluid Connectors - 350 bar

innovative solutions

Insert- and screw-in type, nominal diameter 3/5/8



Advantages:

- ✓ **Very low leakage and air intake**
- ✓ **Suitable for fluids and gases**
- ✓ **Functional parts made of high density stainless steel**
- ✓ **Simple mounting (without special tools)**
- ✓ **Pressurized and depressurized connectable**
- ✓ **Mounting into individual contour**
- ✓ **Low pollution possibility**

Description:

These coupling elements are only for **mechanically connecting** and are used for the transfer of liquids and gases.

They have to be integrated directly into a countercontour.
Because of the use of an axial seal between coupling mechanism and coupling nipple, radial and axial positioning tolerances can be compensated in a limited scope.

The coupling elements are **depressurized and pressurized** connectable.

All system sealing surfaces are metal- and soft sealed. Because of that, and due to the use of new materials, there is no distinction between the type of coupling / application.

All mechanical parts are made of stainless steel (partly high density)
Regarding the sealing materials we dispended consciously on FKM.
NBR seals have more media resistance and the system seals usually are not made from FKM, anyway.

The coupling elements are **completely dis-assemblable**.
That's why all internal seals can be replaced when worn.

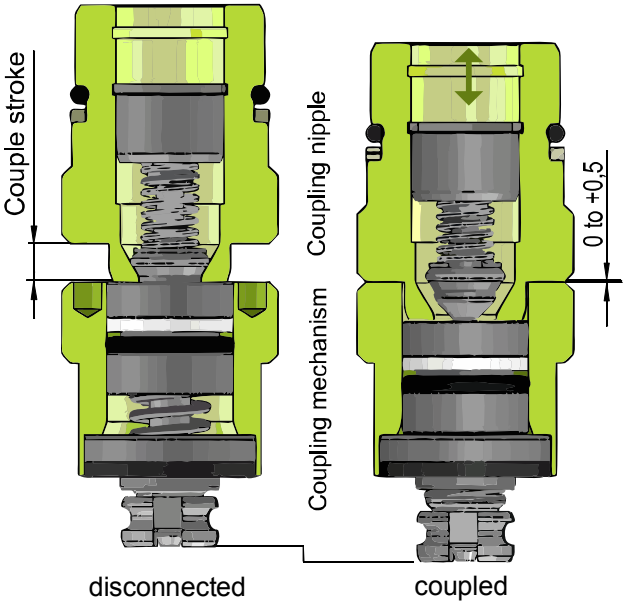
Recommendations for use:

The **insert elements** are particularly suitable for installation into **plates of multiple coupling systems**.
The **screw-in elements** can be **directly scewed into the fixture** body, for example of a tool change system.

The mechanism and the nipple must be coaxial and opposite to each other before the coupling process.
The inclusion bodies of both coupling elements must be guided approximately 2 mm before the contact of the flat face sealing, without passing the radial position tolerance.

When coupling nipple and coupling mechanism are locked and under pressure, there's a coupling force acting between them.
The coupling force must be absorbed by a form-locking or nonpositive design.
(see technical data -. coupling force).

The coupling surfaces must be free of dirt before coupling.

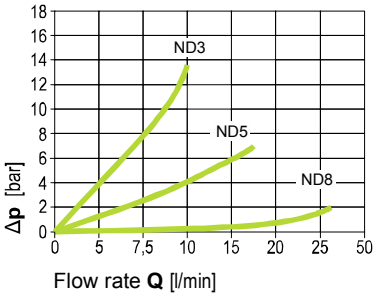


Technical data:

Nominal diameter:	[mm]	3	5	8
max. working pressure	[bar]	350	350	350
max. flow rate / min.	[l]	8	12	25
coupling stroke	[mm]	4,5	4,5	7,0
coupling force min. at 0 bar	[N]	94	98	98
axial coupling force under pressure per coupling point		F[N]=9,4x**p**[bar]	F[N]=15,4x**p**[bar]	F[N]=31,4x**p**[bar]
axial positioning tolerance	[mm]	+ 0,5	+ 0,5	+ 0,5
radial positioning tolerance	[mm]	± 0,1	± 0,25	± 0,3
permitted angle tolerance		± 1°	± 1°	± 1°

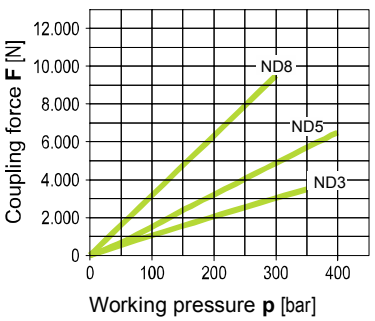
Flow resistance:

Δp chraracteristic
with HLP 22, viscosity 34 cst



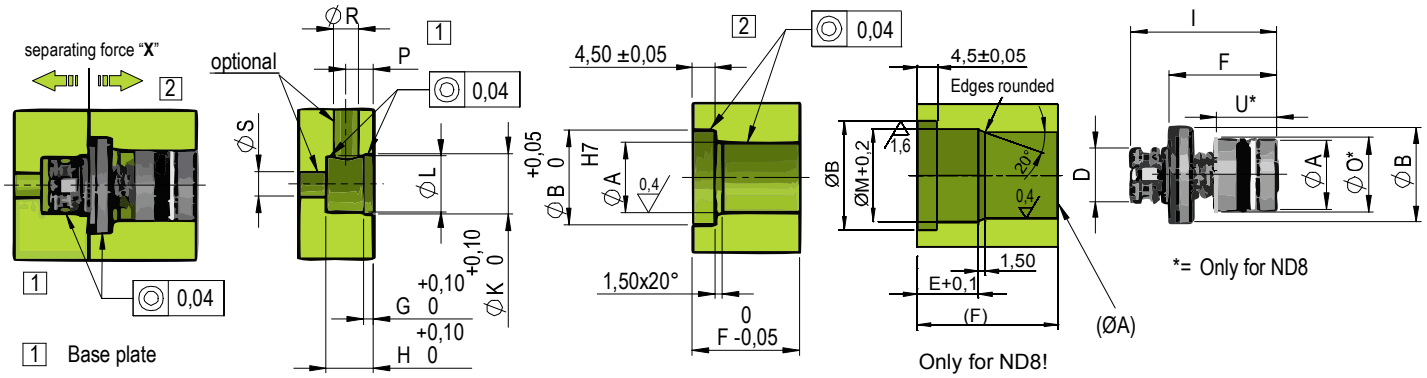
Coupling force:

Under pressure

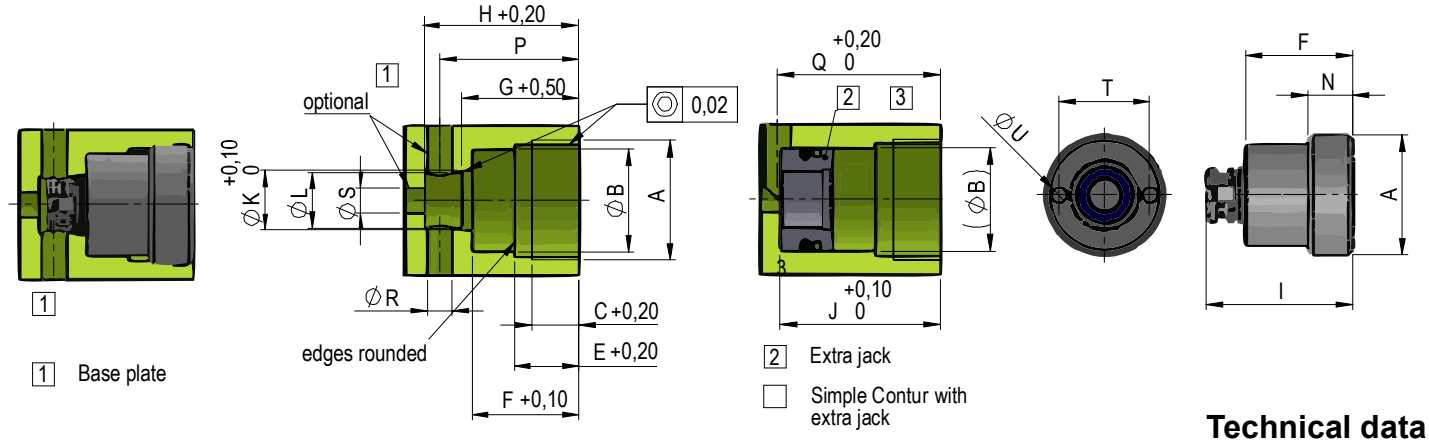


Coupling mechanics

Insert type



Screw-in type



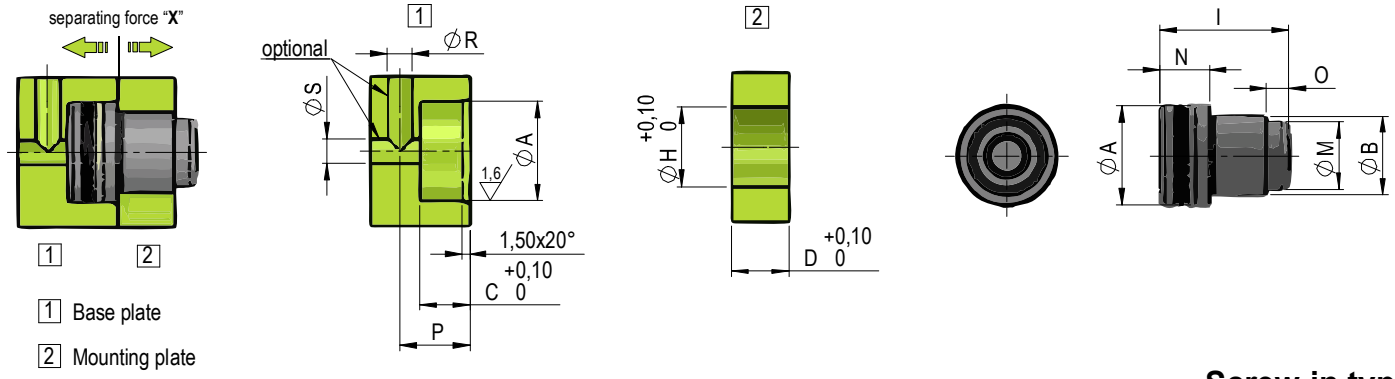
Technical data

Nominal Diameter		3		5				8			
Type	**Unit**	**Insert**	**Screw-In**	**Insert**	**Insert *** **	**Screw-In**	**Screw-In**	**Insert**	**Insert**	**Screw-In**	**Screw-In**
A	mm	10	M20x1,5	14	14	M24x1,5	M24x1,5	19	20	M36x1,5	M32x1,5
B	mm	15	18 H7	19	19	22 H7	20,5 H7	24	24	30 +0,05	27 H7
C	mm	-	9,5	-	-	10 **	9,5	-	-	13 **	13 +1
D	mm	10,8	-	10,8	10,8	-	-	18	18	-	-
E	mm	-	13	-	-	10 **	13	14	13,5	13 **	16
F	mm	21,5	21,5	21,5	21,5	21,5	21,5	31	31	31	31
G	mm	2 *	23,5 *	2 *	2 *	23,5 *	23,5 *	-	-	-	-
H	mm	9,5	31	9,5	9,5	9,5	31	15,5	15,5	46,5	46,5
I	mm	29,2	29,2	29,2	29,2	29,2	29,2	44	44	44	44
J	mm	-	32	-	-	32	32	-	-	49	49
K	mm	12 *	12 *	12 *	12 *	12 *	12 *	-	-	-	-
L	mm	11,2	11,2	11,2	11,2	11,2	11,2	18	18	18	18 H7
M	mm	-	-	-	-	-	-	21,6	20,5	-	-
N	mm	-	8,5	-	-	9	8,5	-	-	12	12
O	mm	-	-	-	-	-	-	20,2	20,2	-	-
P	mm	6,5	28	6,5	6,5	28	28	7,5	9	40	38,5
Q	mm	-	31,8	-	-	-	31,8	-	-	-	48,8
R	mm	5	5	5	5	5	5	8	12	8	8
S	mm	7	6	7	7	7	7	10	10	10	10
T	mm	-	15	-	-	18,5	18,25	-	-	28	25
U	mm	-	3	-	-	2,6	3	18,5	-	4x Ø4,5	4,1
X	N	17,7 x p (bar)	-	26,4 x p (bar)	26,4 x p (bar)	-	-	45,2 x p (bar)	45,2 x p (bar)	-	-
Torque	Nm	-	18	-	-	20	20	-	-	32	32
Part Number		**ICME03-001**	**ICME03-002**	**ICME05-001**	**ICME05-004**	**ICME05-005**	**ICME05-002**	**ICME08-001**	**ICME08-004**	**ICME08-002**	**ICME08-002**
Extra Jack			ICME03-010				ICME05-010	-	-	-	ICME08-010
Mounting Tool			ITC03-002			ITC05-002	ITC05-002			ITC08-003	ITC08-002

* = Not necessary (only because of compatibility)
** = With Thread undercut
*** = to act with competitors-nipple

Coupling nipples

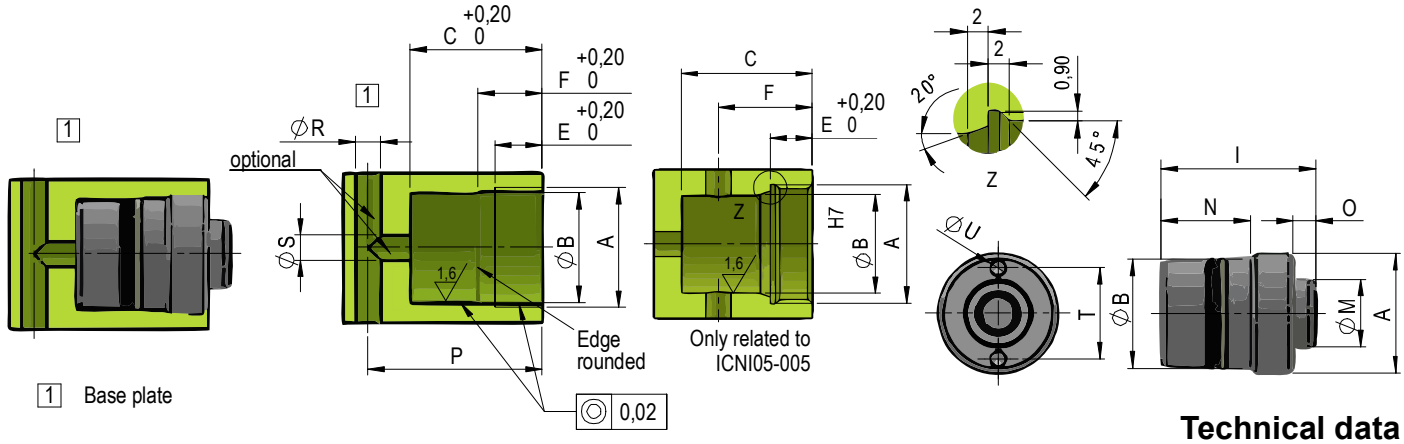
Insert type



1 Base plate

2 Mounting plate

Screw-in type



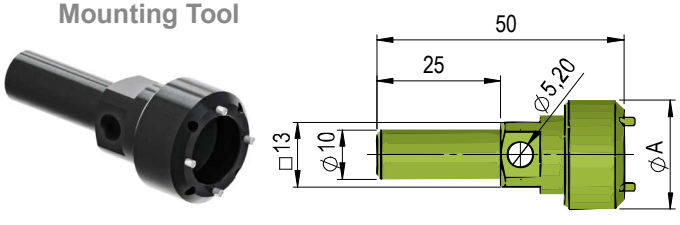
1 Base plate

Technical data

Nominal Diameter		3			5				8		
Type	**Unit**	**Insert**	**Screw-In**	**Screw-In**	**Insert**	**Insert long**	**Screw-In**	**Screw-In**	**Insert**	**Screw-In**	**Screw-In**
A	mm	20 H7	M20x1,4	M20x1,5	20 H7	20 H7	M24x1,5	M24x1,5	24 H7	M30x1,5	M36x1,5
B	mm	15,8	16 H7	17 H7	15,8	15,8	20 H7	22 H7	21	25 H7	30 H7
C	mm	10	23	22	10	16,5	25	26,5	9	26	24
D	mm	11,5	-	-	11,5	17,1	-	-	15	-	-
E	mm	-	8,4 *	9,5	-	-	8,5	9,5	-	8,5 *	12,5
F	mm	-	8,4 *	11	-	-	-	>19	-	8,5 *	15
H	mm	16	-	-	16	16	-	-	21	-	-
I	mm	25,9	25,9	26,5	25,9	38,1	27	31	31,4	29,9	31,4
M	mm	9,8	9,8	9,8	13,5	13,5	13,5	13,5	18,4	18,4	18,4
N	mm	10	13	13,5	10	16,5	18	18	9	14	12
O	mm	4,5	4,5	4,5	4,5	4,5	4,5	4,5	7,4	7,4	7,4
P	mm	14	19	27	14	21,1	>19	31	14	22,5	29
R	mm	5	5	5	5	5	5	5	8	8	8
S	mm	5	6	6	5	5	5	6	10	10	10
T	mm	-	15,5	15	-	-	2x 18,5	18,25	-	24	24,6
U	mm	-	2,6	3	-	-	4x 3	3	-	3,5	4,1
X	N	31,4x p (bar)	-	-	31,4x p (bar)	31,4 x p (bar)	-	-	45,2 x p (bar)	-	-
Torque	Nm	-	16	16	-	-	21	21	-	30	30
Part Number		**ICNI03-001**	**ICNI03-003**	**ICNI03-002**	**ICNI05-001**	**ICNI05-003**	**ICNI05-005**	**ICNI05-002**	**ICNI08-001**	**ICNI08-003**	**ICNI08-002**
Mounting Tool			ITC03-003	ITC03-002			ITC05-002	ITC05-003		ITC08-003	ITC08-002

* = With Thread undercut

Mounting Tool



Contact

iNOSOL GmbH
Frankfurter Str. 18
35315 Homberg/Ohm (Germany)

web: www.inosol.solutions
email: info@inosol.solutions
tel.: (+49) 6633 / 368 95 25