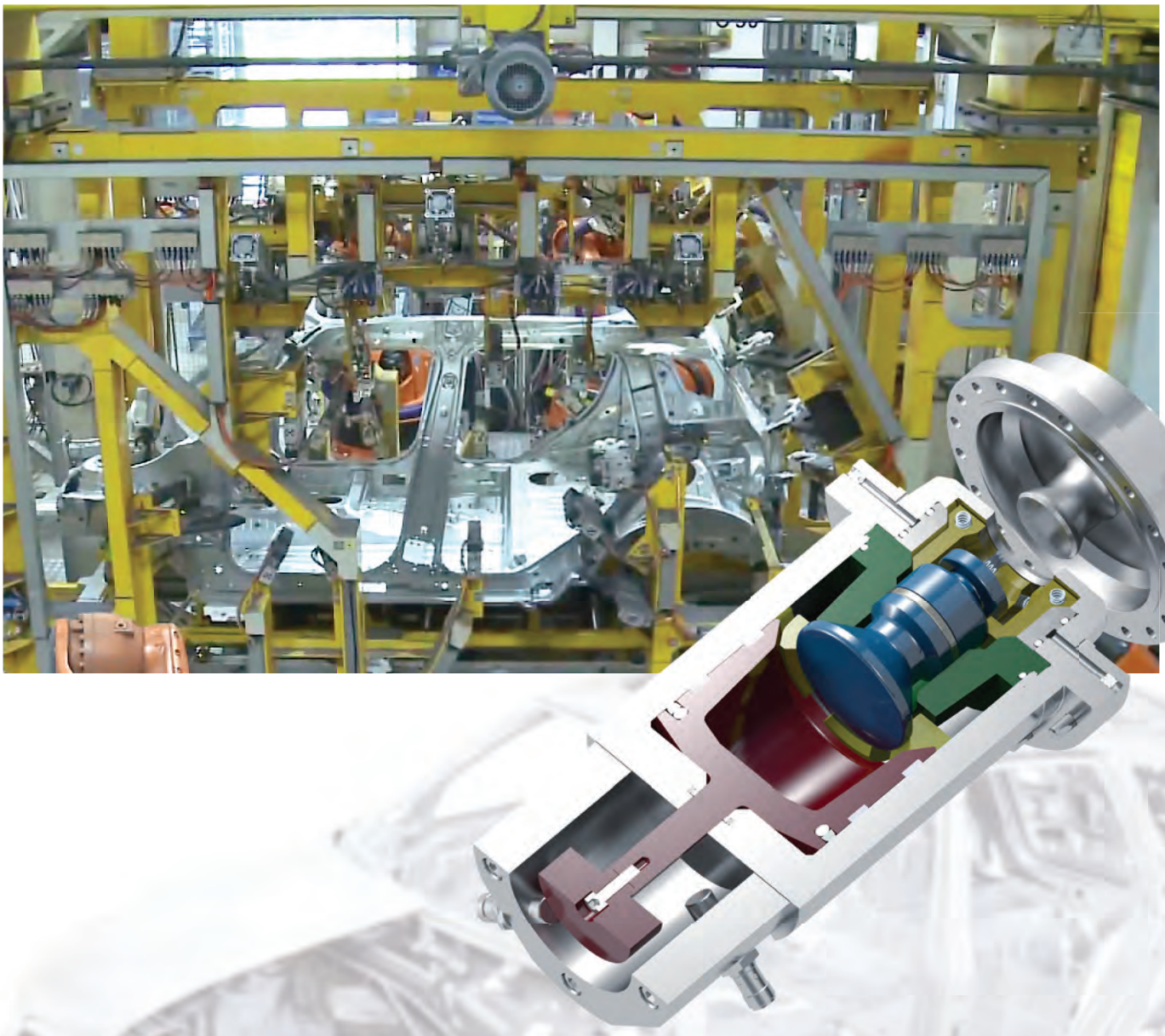
ClampingTechnology



CyTec Frame docking system enables high quality processing for bodyframing welding lines

CYTEC SYSTEMS

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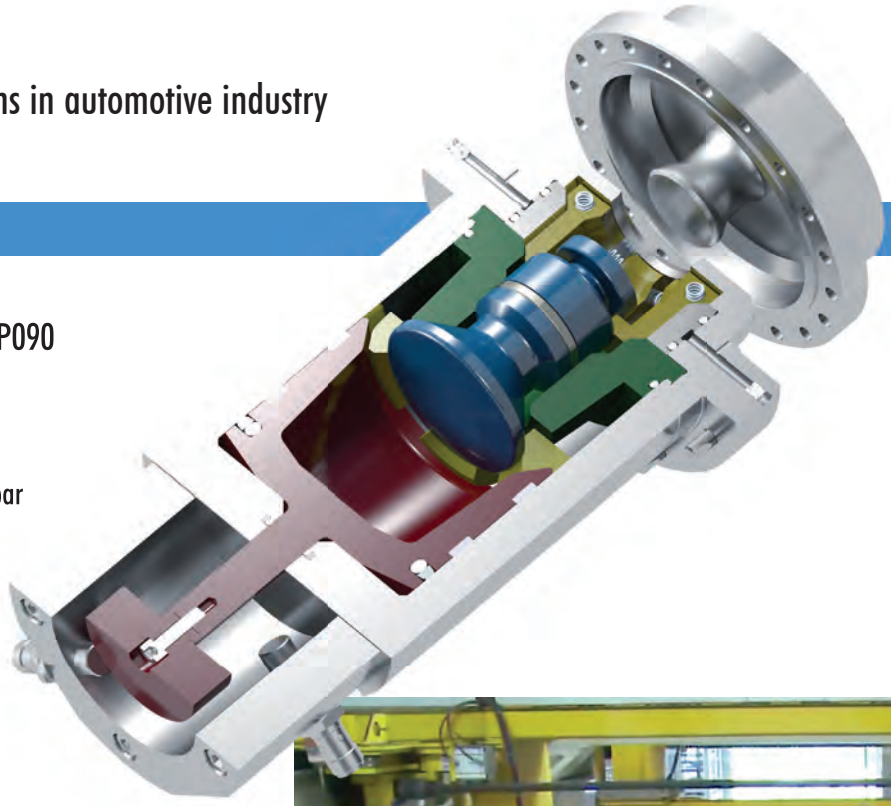
CyTab

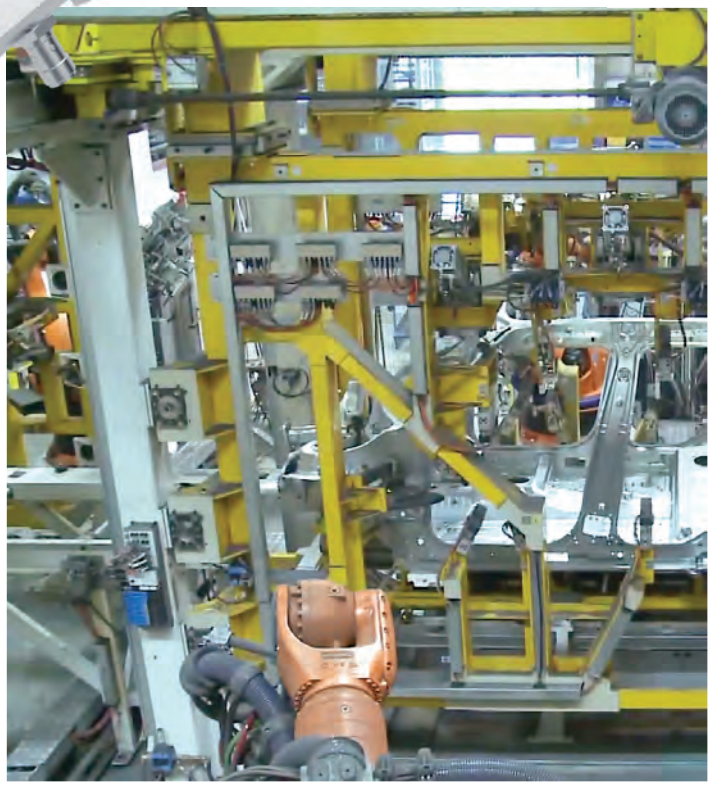
Applications in automotive industry

CyTab for bodyframing



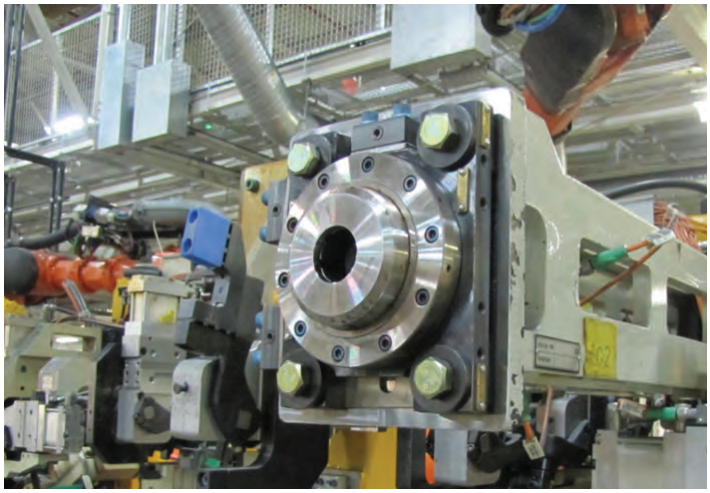
Hydromechanical clamping system STP090

- 100% failsafe
- High clamping force: 12 kN
- Pneumatically operated; pressure: 6-12 bar
- Positively locked in clamped position
- Holding force: 40 kN
- Clamping stroke: 9 mm
- Repeatability: 0,001 mm



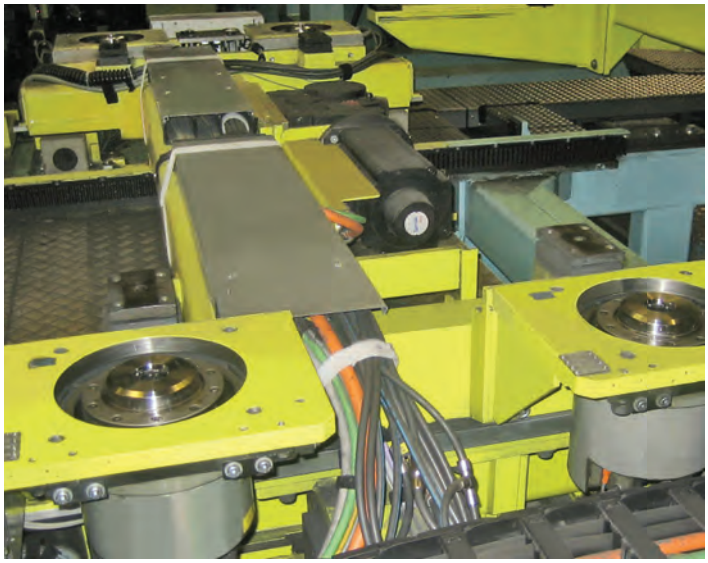
The pneumatic execution of the clamping system CyTab plays a central role in the automotive industry in automatic welding and assembly lines. Considerable vehicle manufacturers use these systems for years with great success to support and guarantee reliable, flexible and cost saving production.

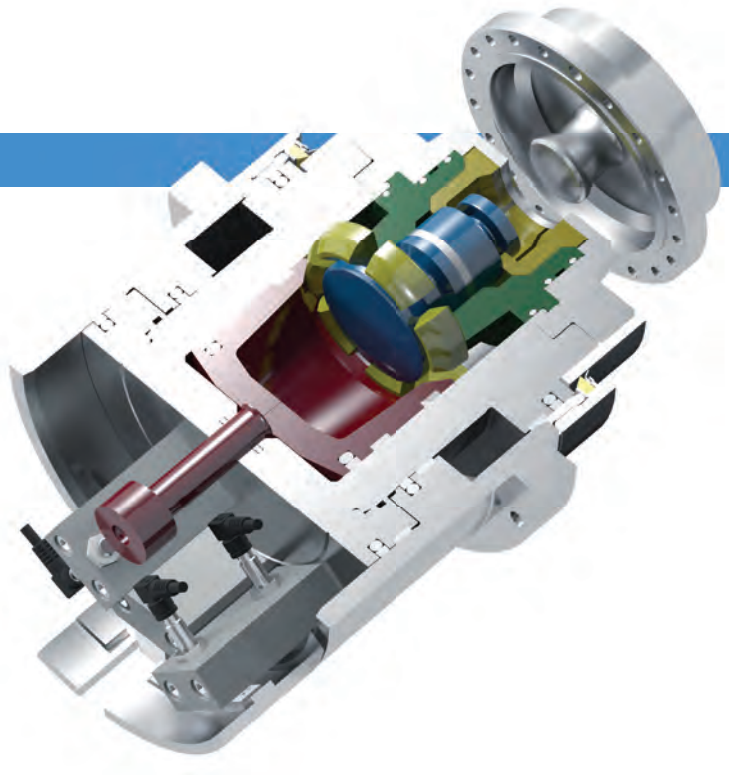
Typical application area ist the bodyframing:
The geometry box with pre-built car body is the basic element, to which the different mounting frames with the lateral car parts are docked precisely and failsafe.
The actual clamping systems (four or six per frame) are attached to the outside corners of the box grasping and locking the mounting frames on each side. In only one functional process the flanges are centered, drawn in and positively locked. This guarantees a stable and reproducible operational process with very low maintenance effort.



CyTab

CyTab “Scope“ for vertical frame docking





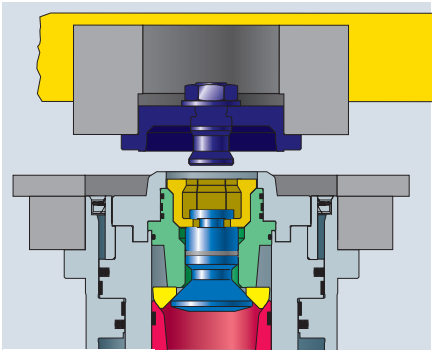
Hydromechanical clamping system STP090 “Scope“ with additional grasping stroke

Function of the clamping system “Scope“ version

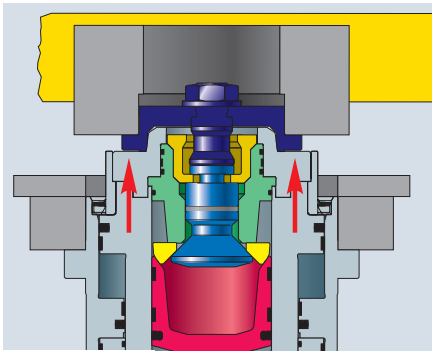
Basically the clamping process is the same as the standard CyTab or CyTrac systems.
Prior to that, the “scope“ housing executes an additional stroke to grasp the external flange/draw bolt over a certain distance.

In short:

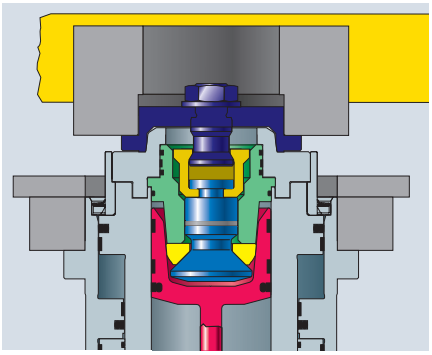
- The Scope housing extends and grasps the external draw bolt, that is in feed position (1).
- The actual clamping process follows by pressurising the clamping chamber (2).
- In final position, the flange is locked positively (3).



Phase 1



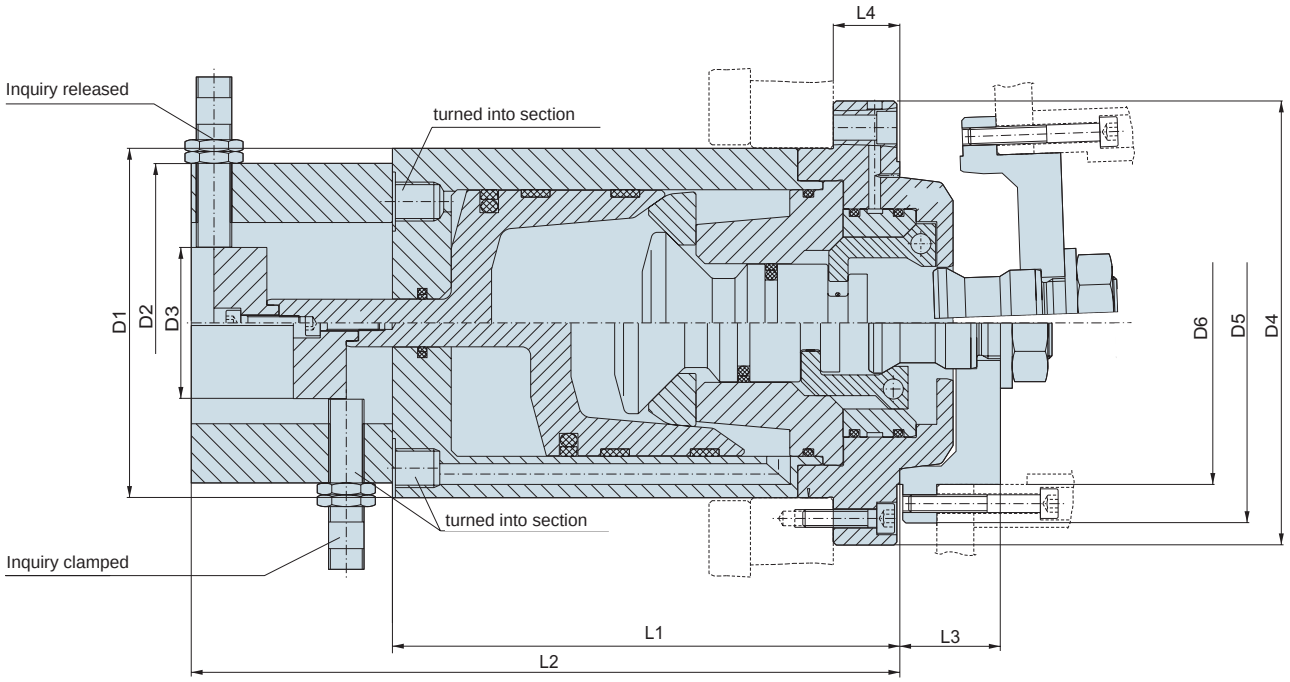
Phase 2



Phase 3

CyTab

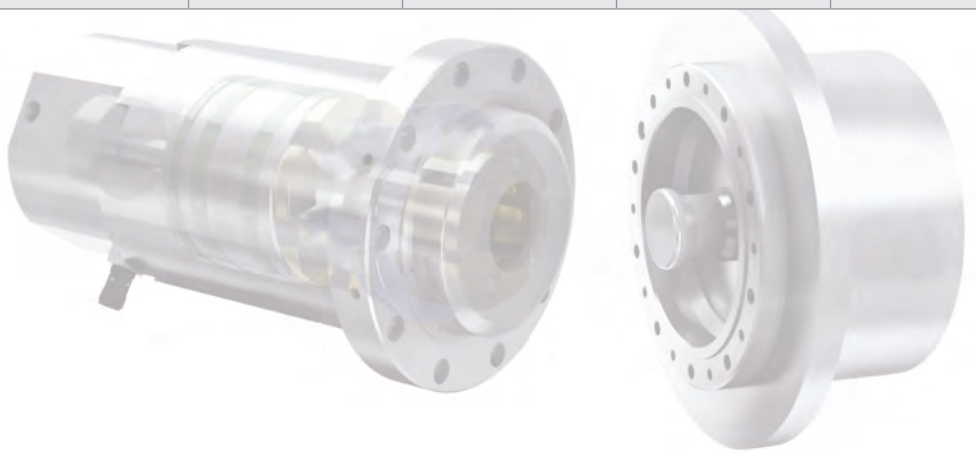
Technical data Series STP050/090



The clamping system STP is available in 2 sizes:

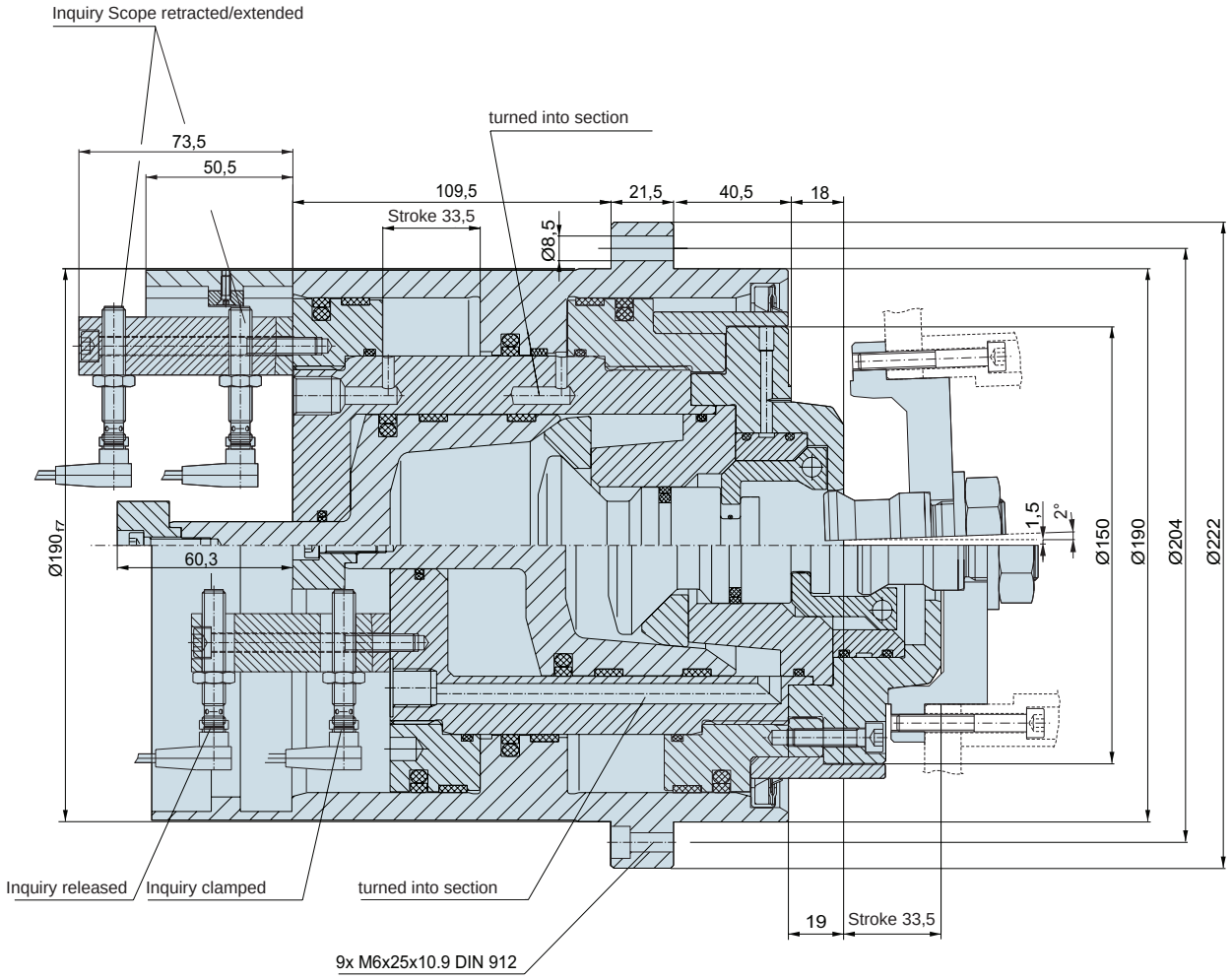
Type	D1 [mm]	D2 [mm]	D3 [mm]	D4 [mm]	D5 [mm]	D6 [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]
STP 050	75	58	30	110	110	80	111	155	34	23
STP 090	118	108	51	150	135	110	172	240	34	23

Type	Clamp stroke [mm]	Draw force [kN], 6 bar	Clamping force [kN], 6 bar	Max. holding force [kN], 6 bar	Admissible radial offset [mm]	Admissible angular offset [°]
STP 050	6,3	1,5	5,0	10	1	1
STP 090	9,32	4	12,5	25	1,5	2



CyTab

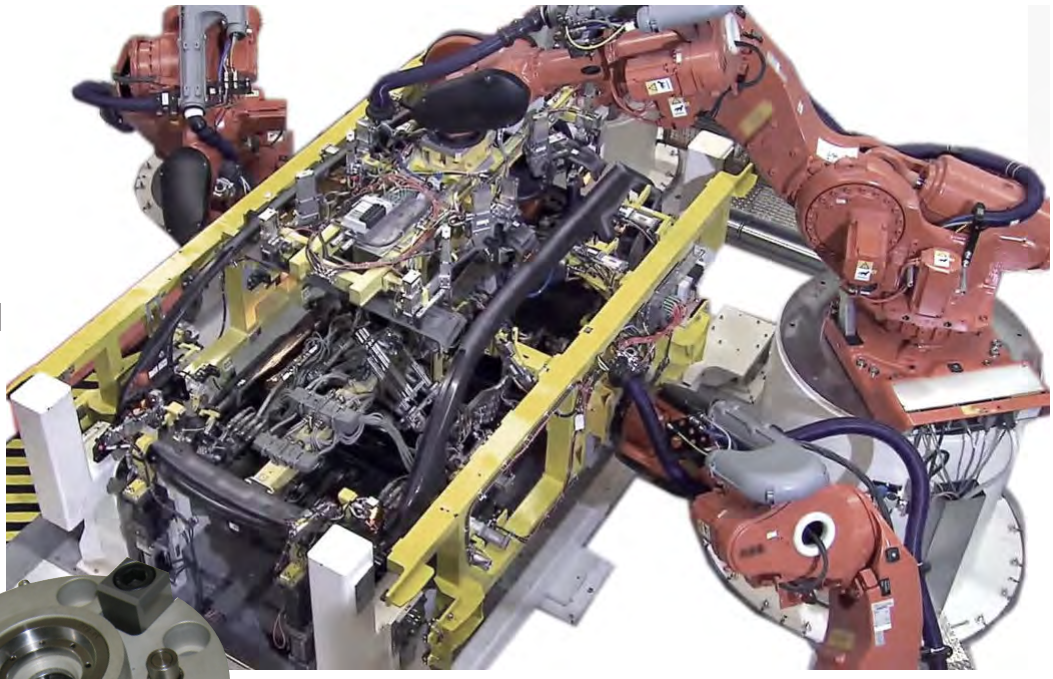
Technical data Series STP090 "Scope"

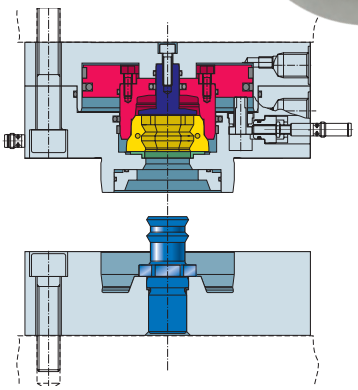


Type	Draw stroke [mm]	Clamp stroke [mm]	Draw force [kN], 6 bar	Clamping force [kN], 6 bar	max. holding force [kN], 6 bar	admissible radial offset [mm]	admissible angular offset [°]
STP 090 Scope	33,5	9,32	4	12,5	25	±1,5	2

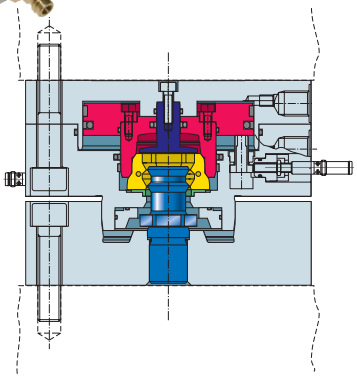
Robot interface clamping system

- 100% safe
- Transmission of electric power and signals
- Transmission of liquid and gaseous media

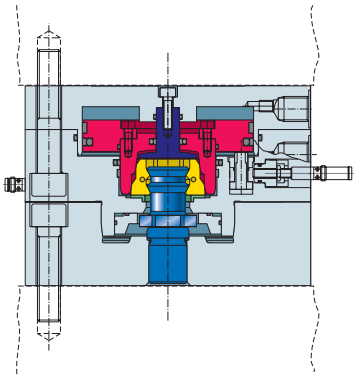




Phase 1: Feeding the clamping bolt and external flange to the clamping unit



Phase 2: External flange with bolt is inserted to the clamping unit



Phase 3: Locked position of external flange/bolt

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