

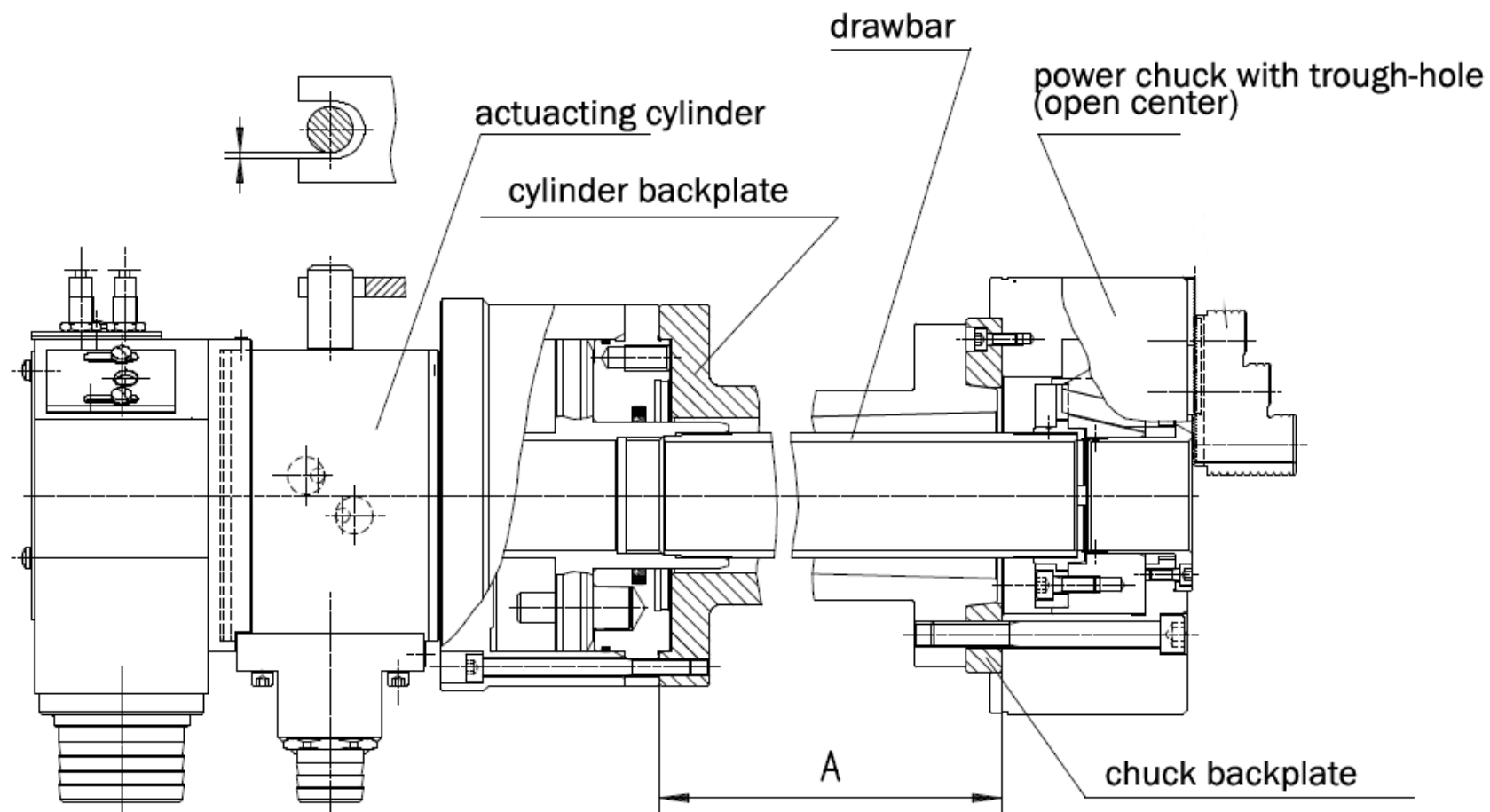


Power chucks and cylinders



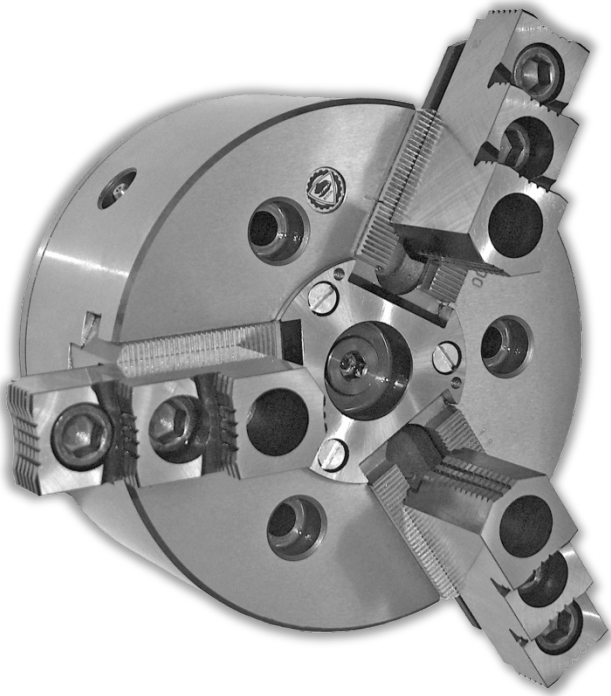


BASIC PRINCIPLE OF POWER CHUCK OPERATION





Power chuck types



**Without through-hole
(closed center)**



**With through-hole
(open center)**

MAIN FEATURES

- Available in 2,3 or 4 jaws execution
- Manufactured from high grade alloy steel
- Reversible top jaws hardened and ground
- Base jaws lubricated directly





COMPARISON OF TWO BASIC BISON POWER CHUCKS



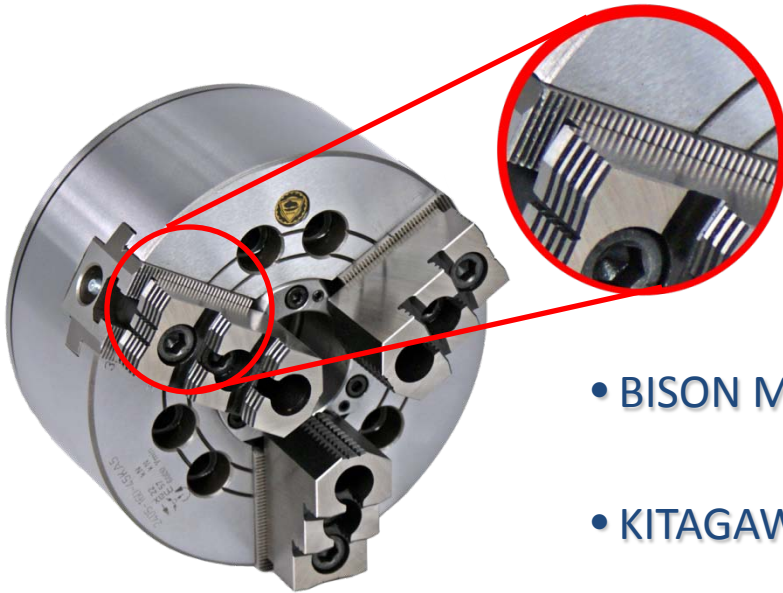
BISON MODEL
Type 2405-M



INTERCHANGEABLE WITH
KITAGAWA B200 Series
Type 2405-K



BASE JAW SERRATION

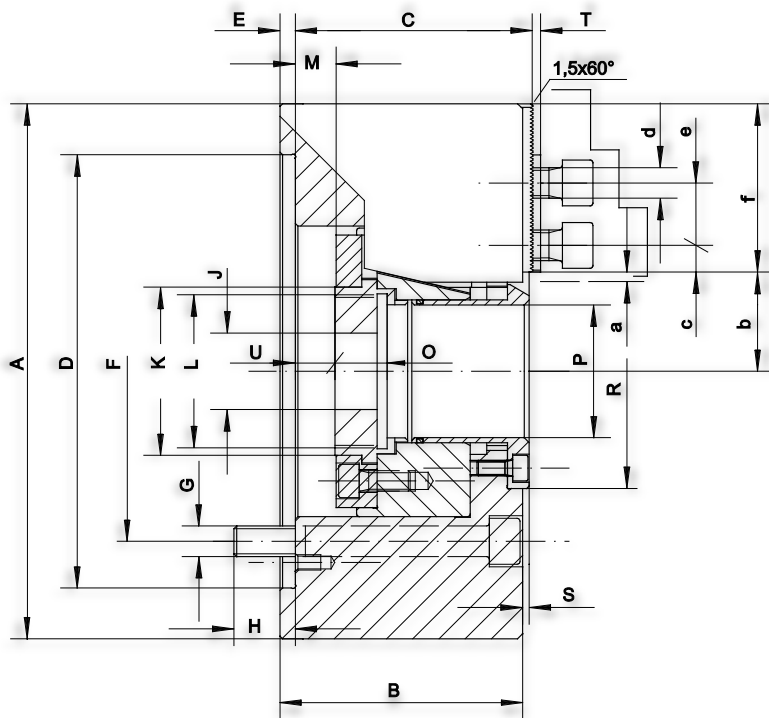


- BISON MODEL SERRATION → 1/16" x 90°
- KITAGAWA SERRATION → 1.5mm x 90°

JAW TRAVEL

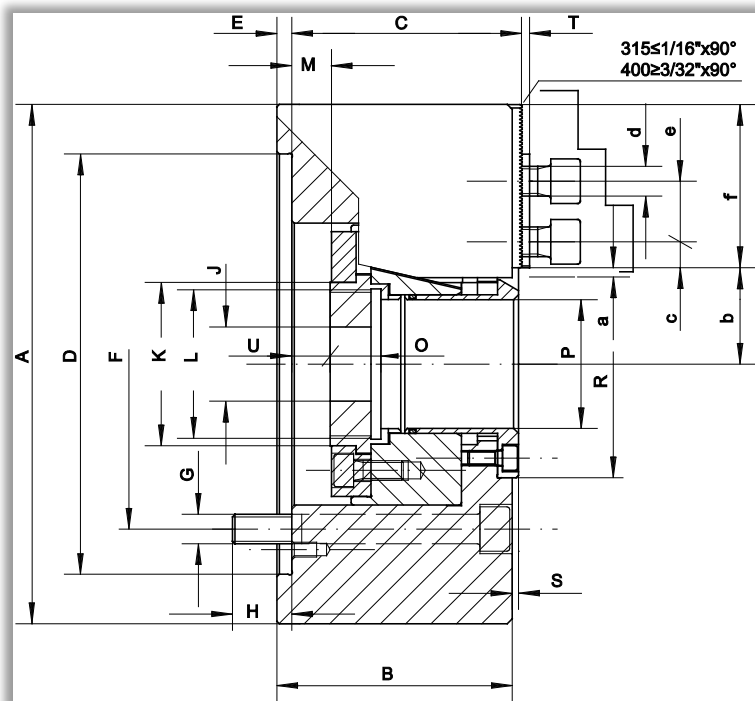
- BISON MODEL → 3.5 – 6.0 mm (ø160 – ø315)
- KITAGAWA → 2.75 – 5.3 mm (ø160 – ø315)

Kitagawa B200 Series Interchangeable Power chuck – Type 2405-K



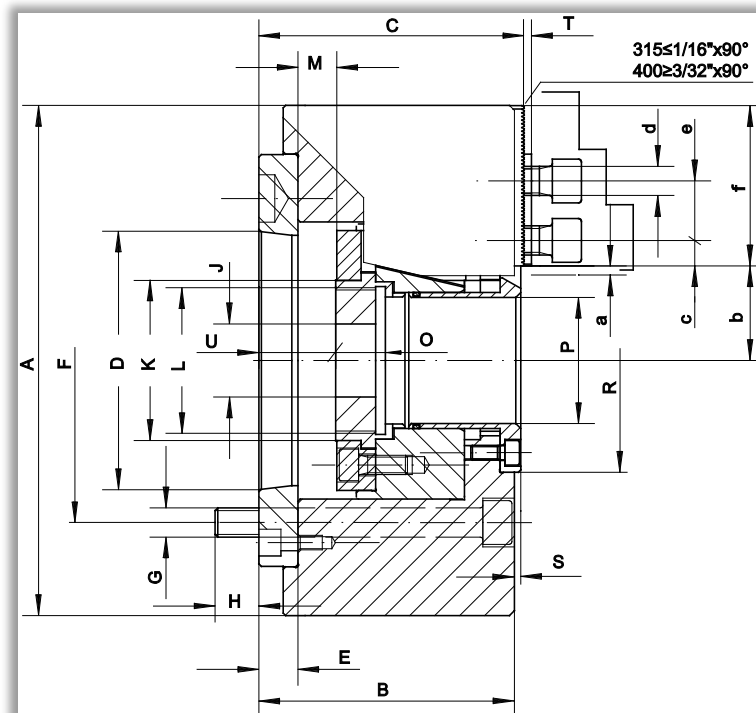
- Same back mount connections (recess, bolt circle, hole numbers and locations)
- Same top jaws connections (T-nuts, screws)
- Different inner dimensions

AVAILABLE TYPES



PLAIN BACK

2405-160-45
2405-200-52
2405-250-75
2405-315-91
2405-400-120

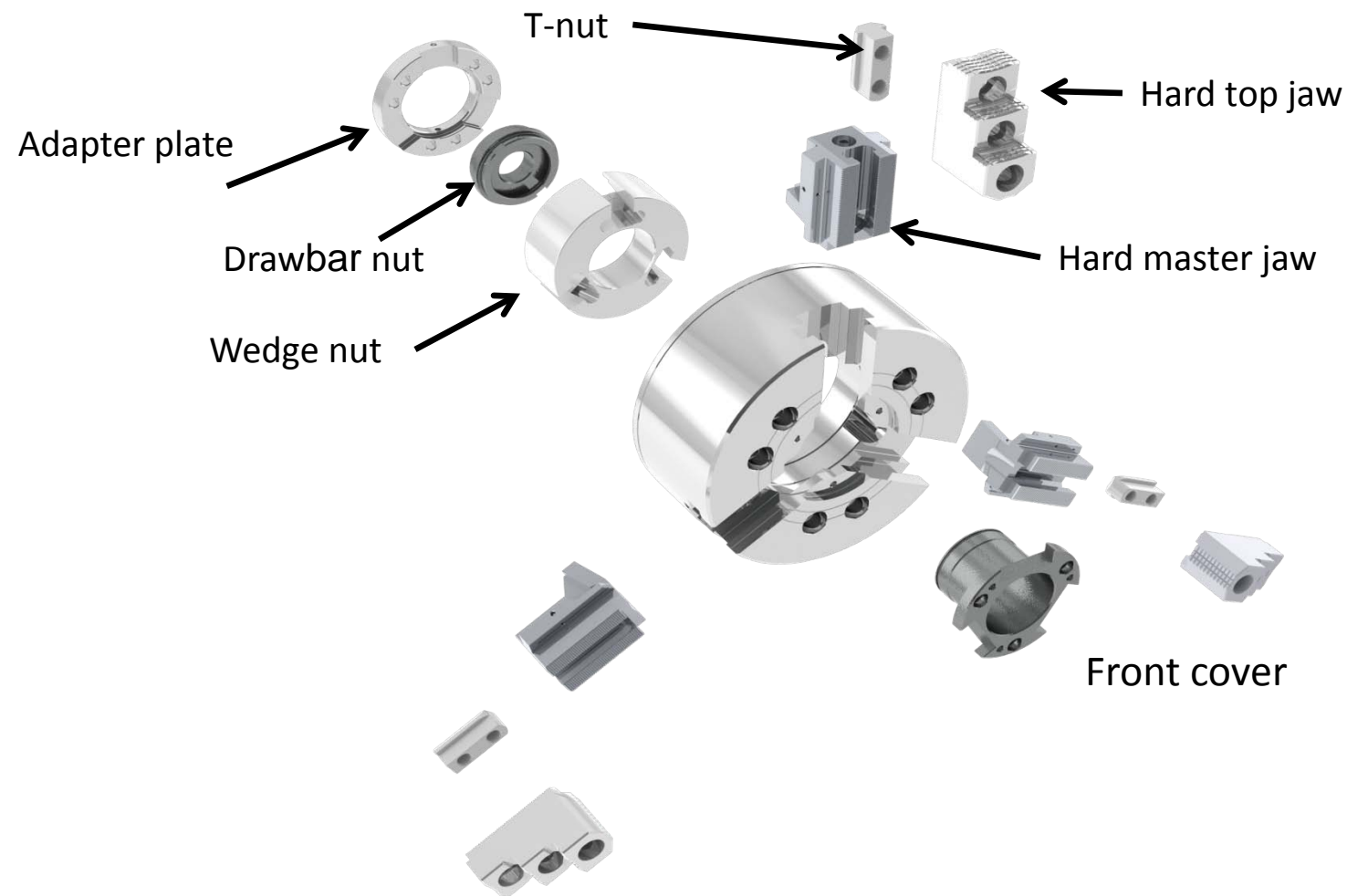


A TYPE MOUNT

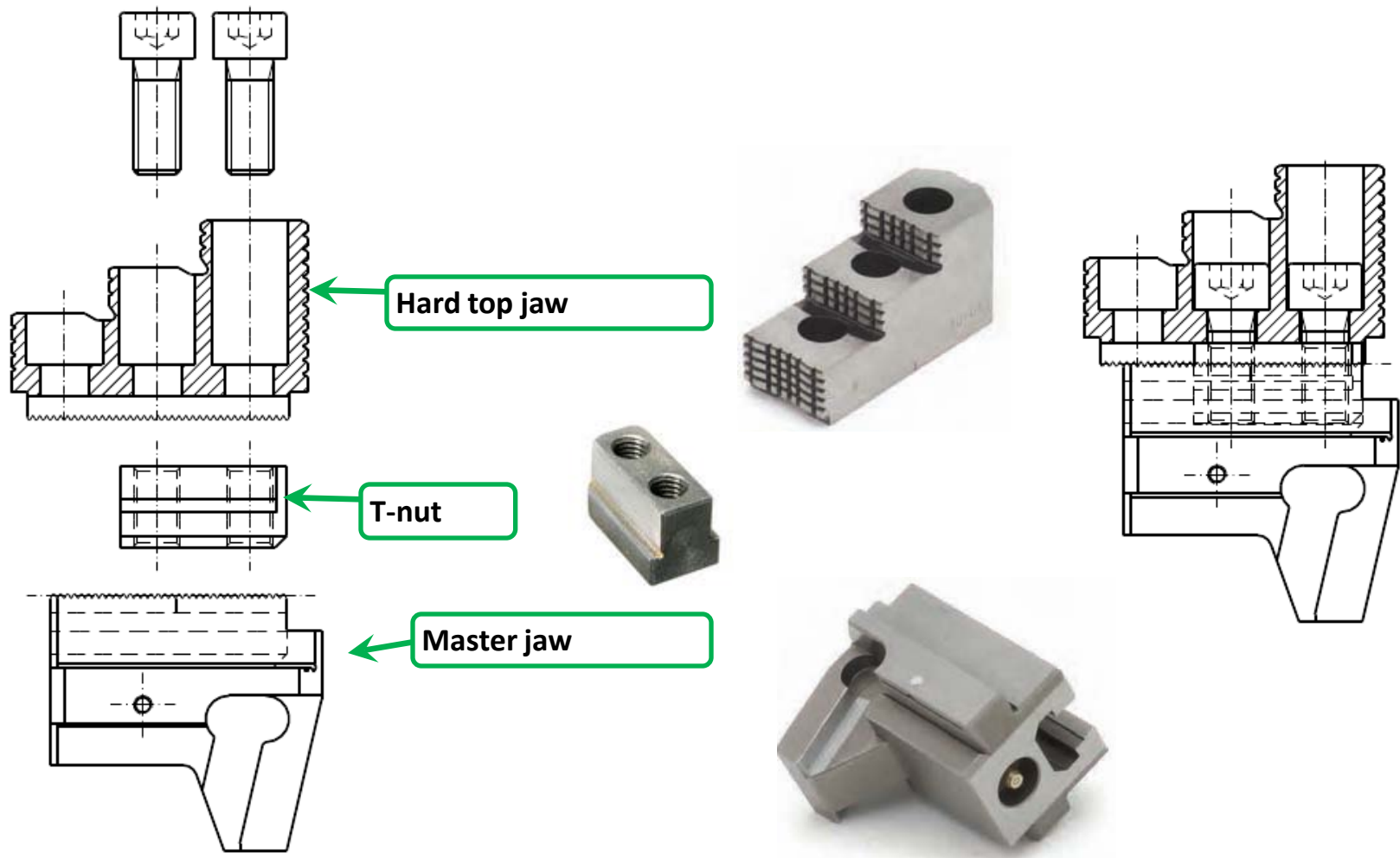
2405-160-45A5
2405-200-52A6
2405-250-75A8
2405-315-91A8
2405-400-120A11



Open Center Power Chuck Inner parts

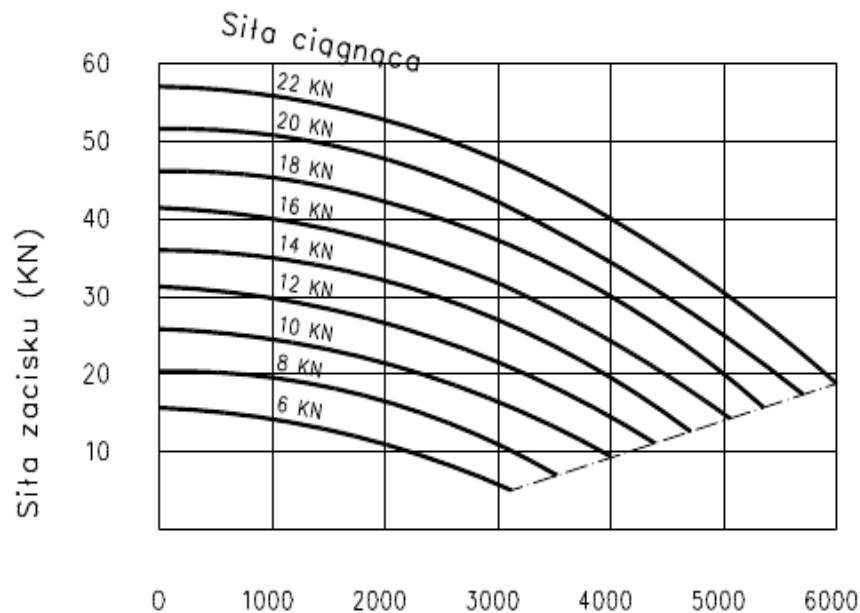
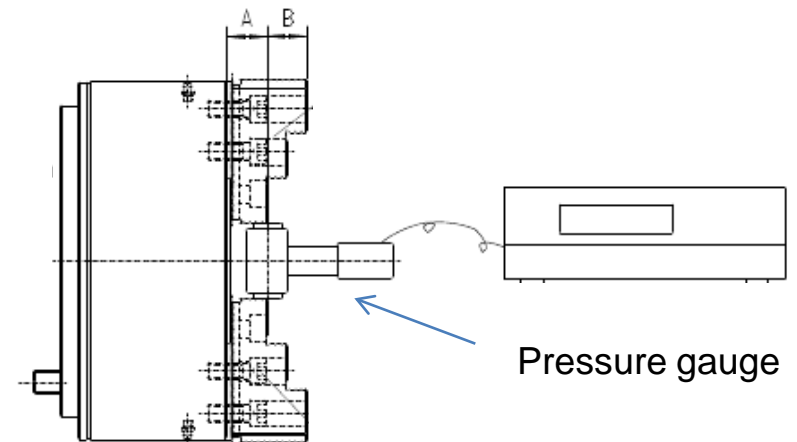


Power chuck - jaws



Checking the gripping force during chuck rotation

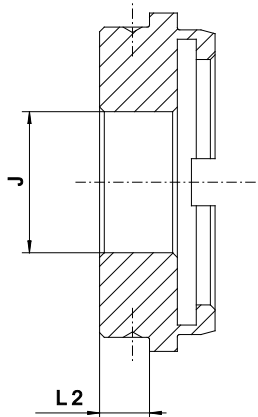
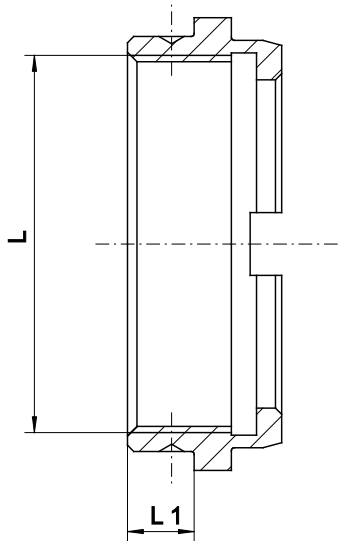
Gripping force measurement



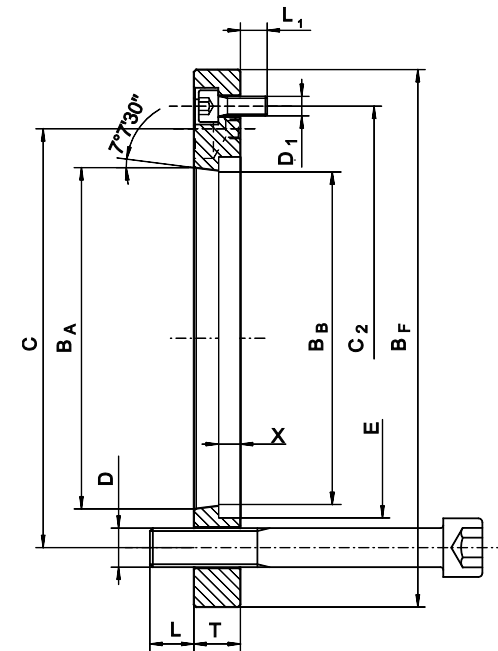
Gripping force loss chart

Power chuck – Spare parts

Drawbar nut – threaded

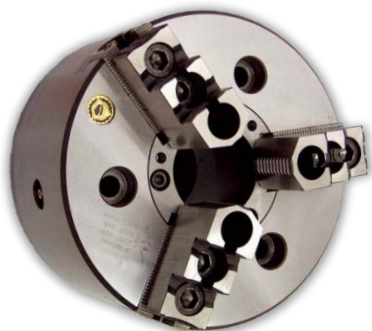
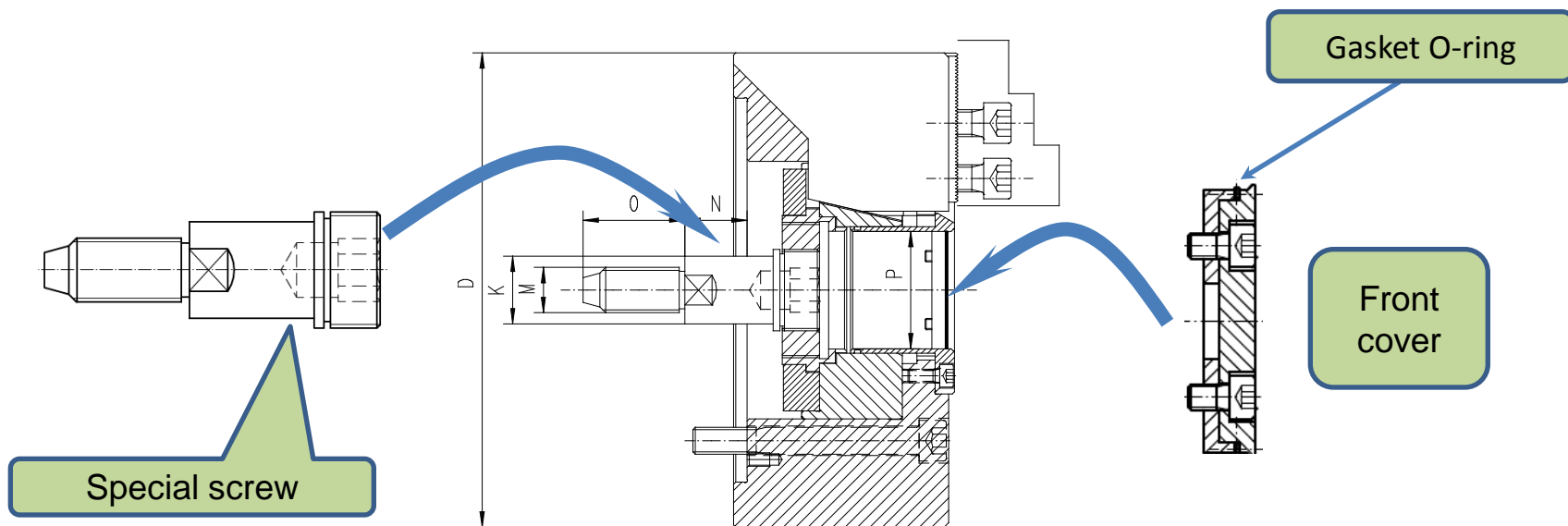


Drawbar nut - blank



Adapter plate
Type 8213
DIN 55026

Special insert for power chucks with hole

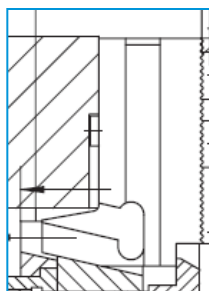


By mounting the special insert you may convert power chuck with through-hole in no through-hole option.

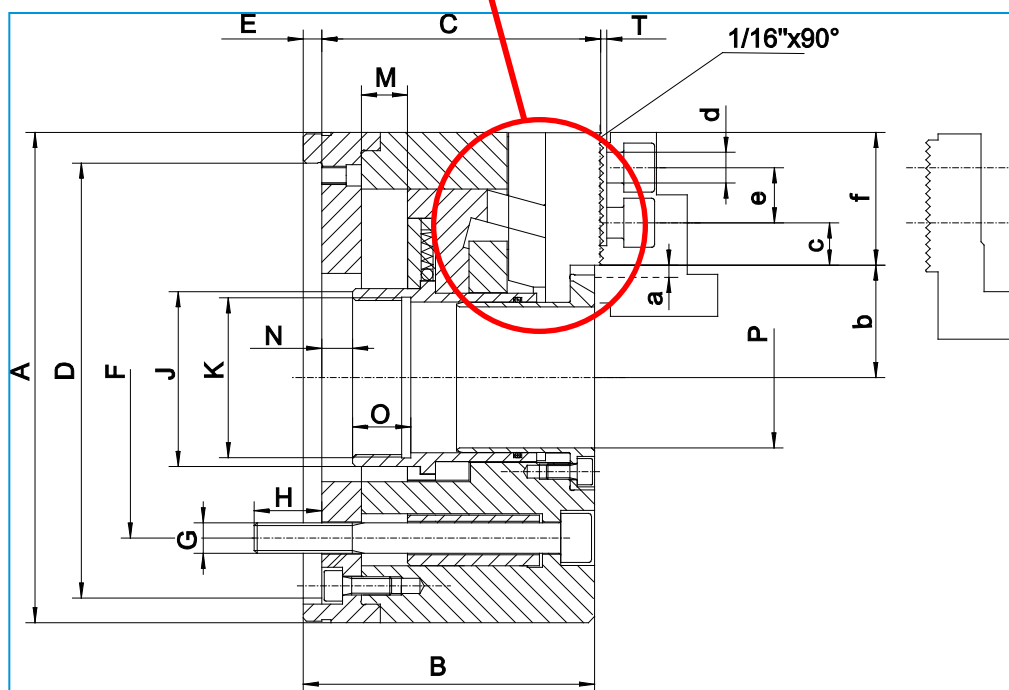




Lever type power chuck Type 2409



Wedge power
chucks



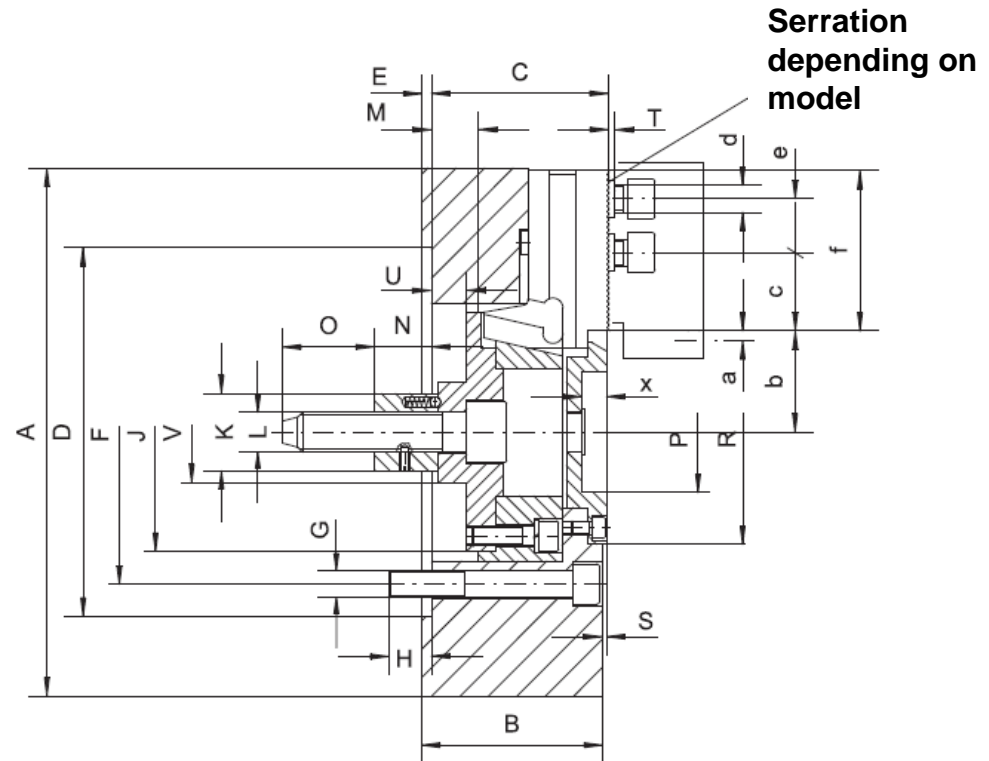
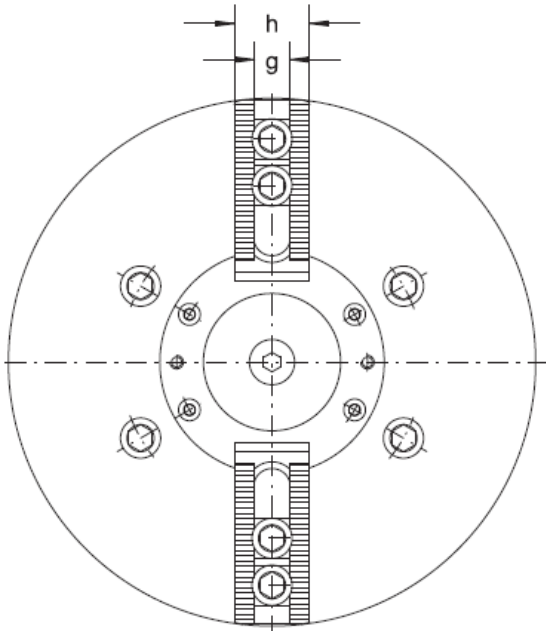
Features:

- ☐ High rigidity
- ☐ Large through-hole

Standard accessories

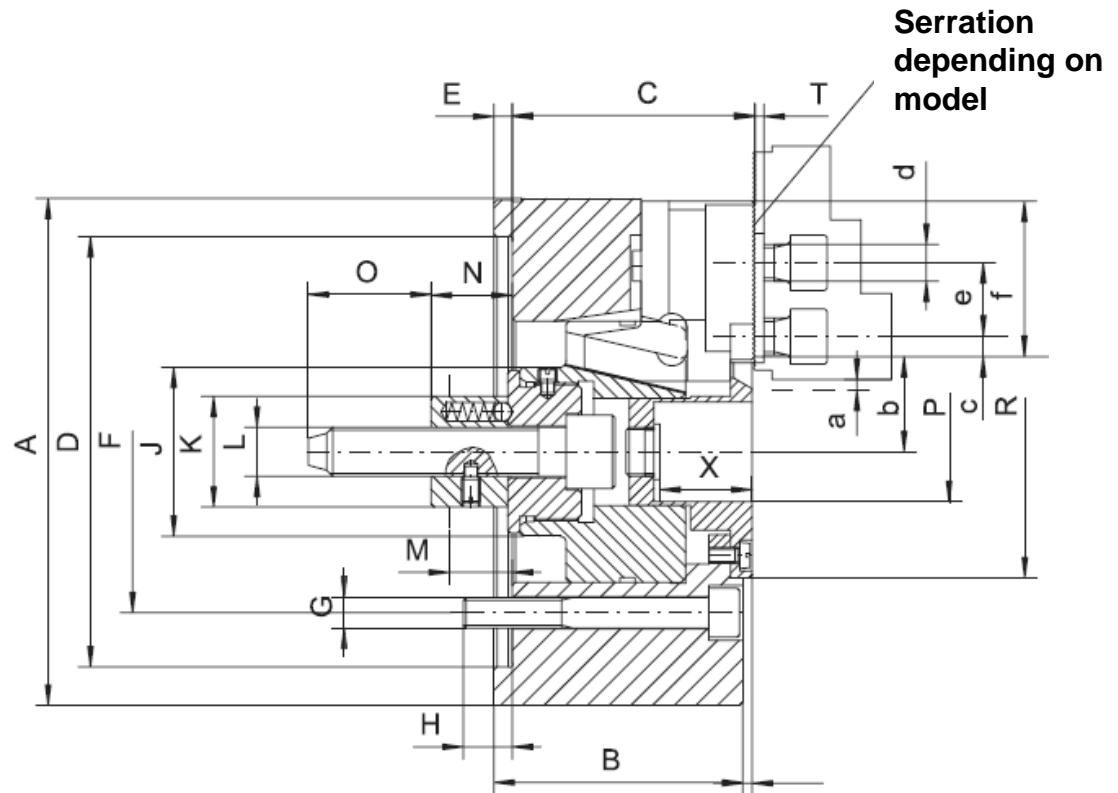
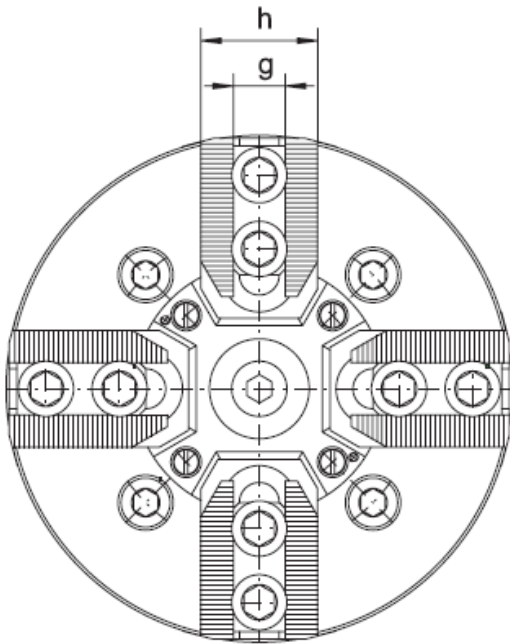
- ☐ Hard top jaws
- ☐ Special hard top jaw
- ☐ Mounting screws

2-jaw power chucks



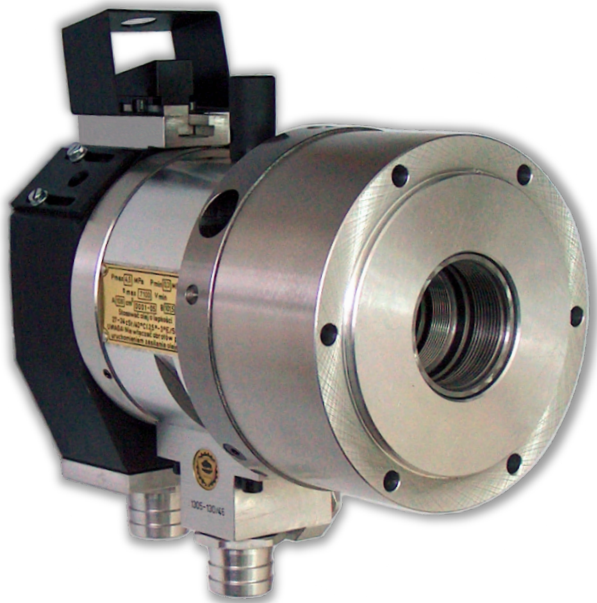
- BISON MODEL Type **2101** SERRATION 1/16" x 90°
- KITAGAWA Type **2105** SERRATION 1.5mm x 90°
- Available sizes **ø160 – ø315**

4-jaw power chucks



- BISON MODEL Type **2604** SERRATION $1/16'' \times 90^\circ$
- KITAGAWA Type **2605** SERRATION $1.5\text{mm} \times 90^\circ$
- Available sizes $\varnothing 160 - \varnothing 315$

Hydraulic cylinder with through-hole Type 1305

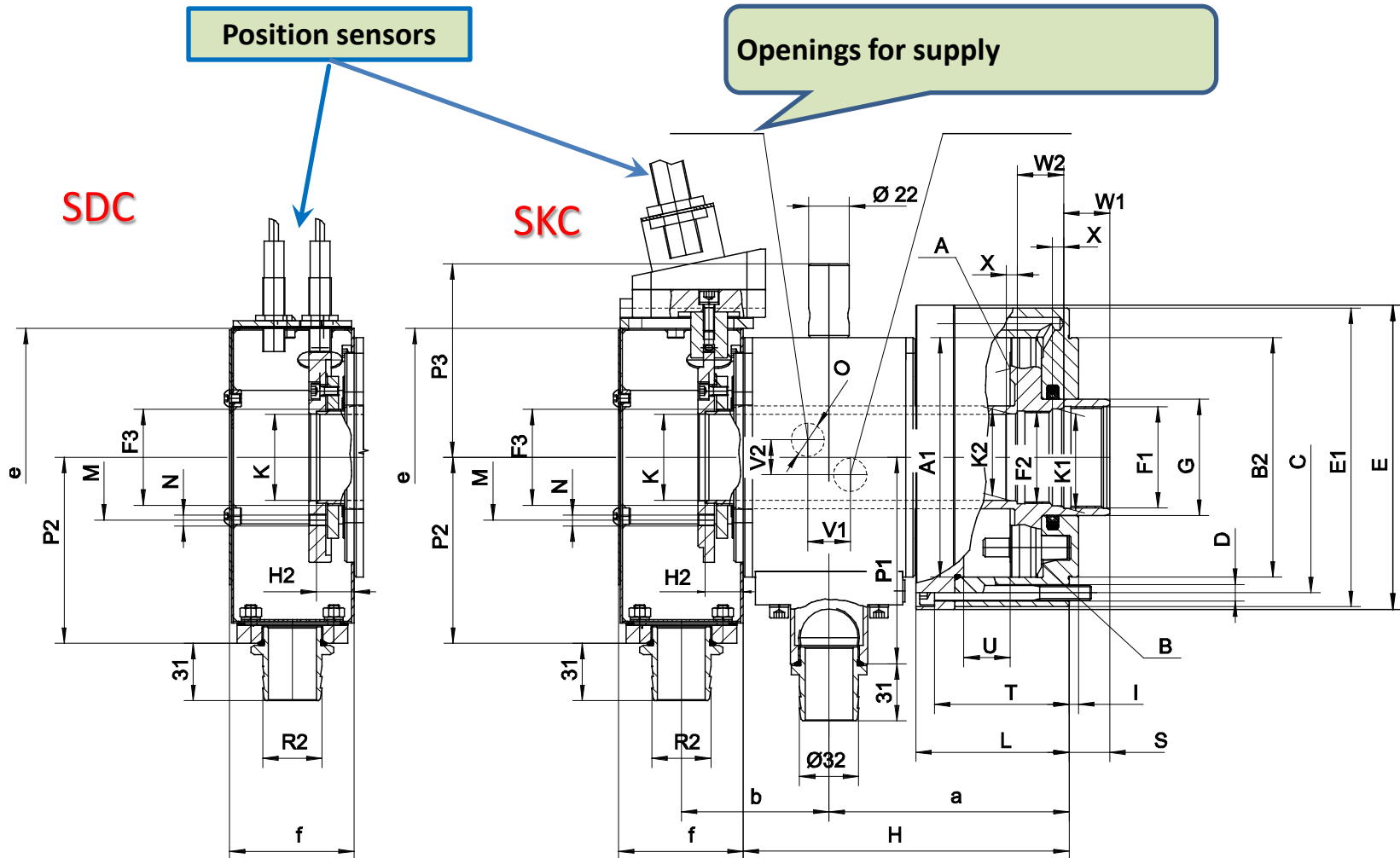


1305-102/46
1305-130/52
1305-150/62
1305-225/95



Power chucks with
through-hole

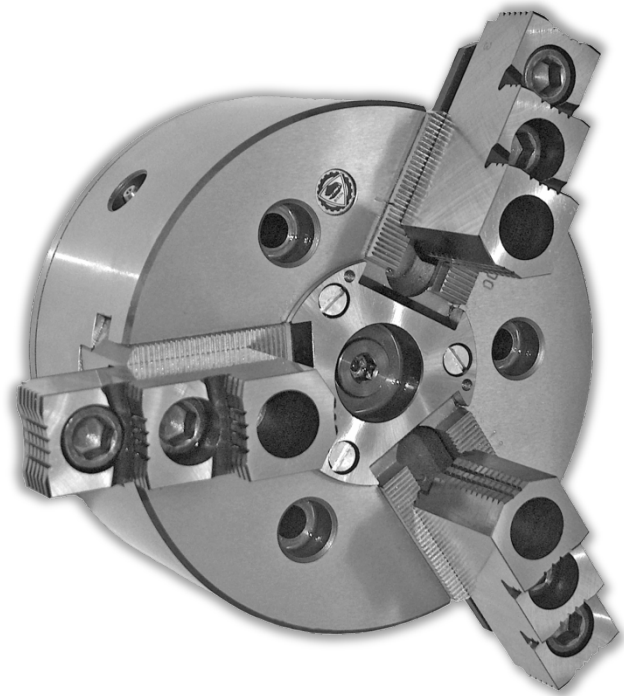
Hydraulic cylinder with through-holes Type 1305



Hydraulic cylinder without through-hole Type 1304

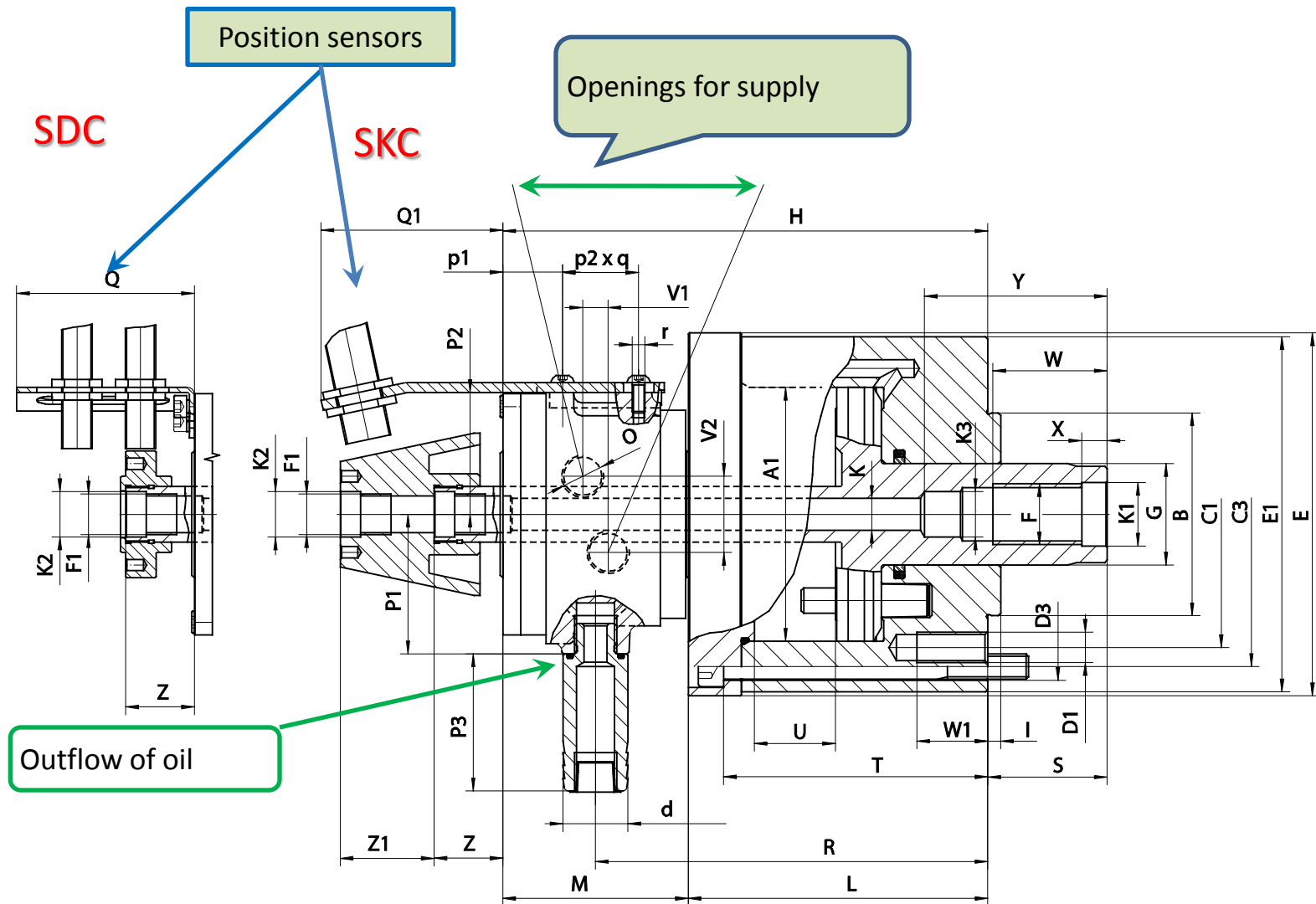


Available sizes
1304-100
1304-200



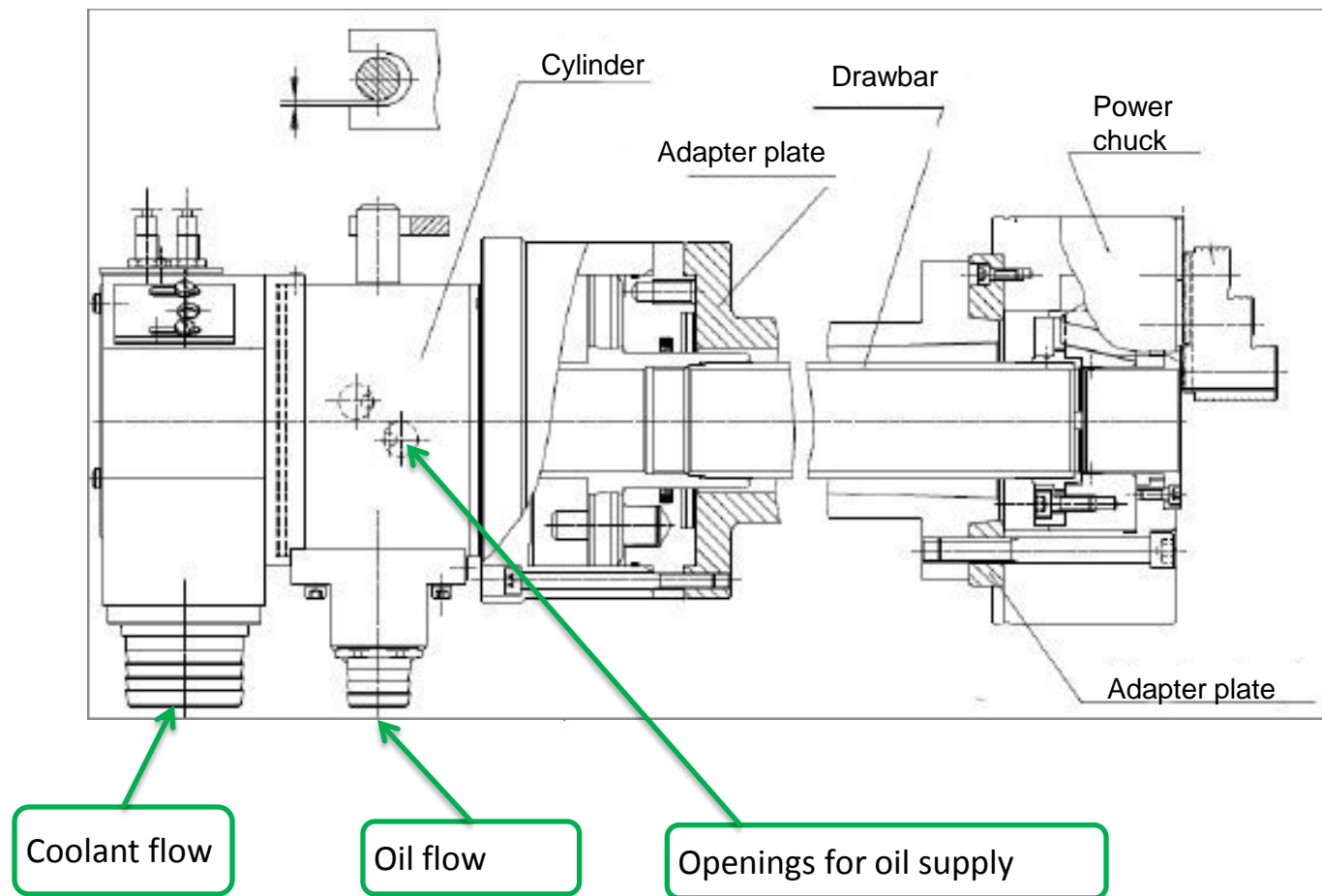
Power chuck without
through-hole

Hydraulic cylinder without through-hole – Type 1304

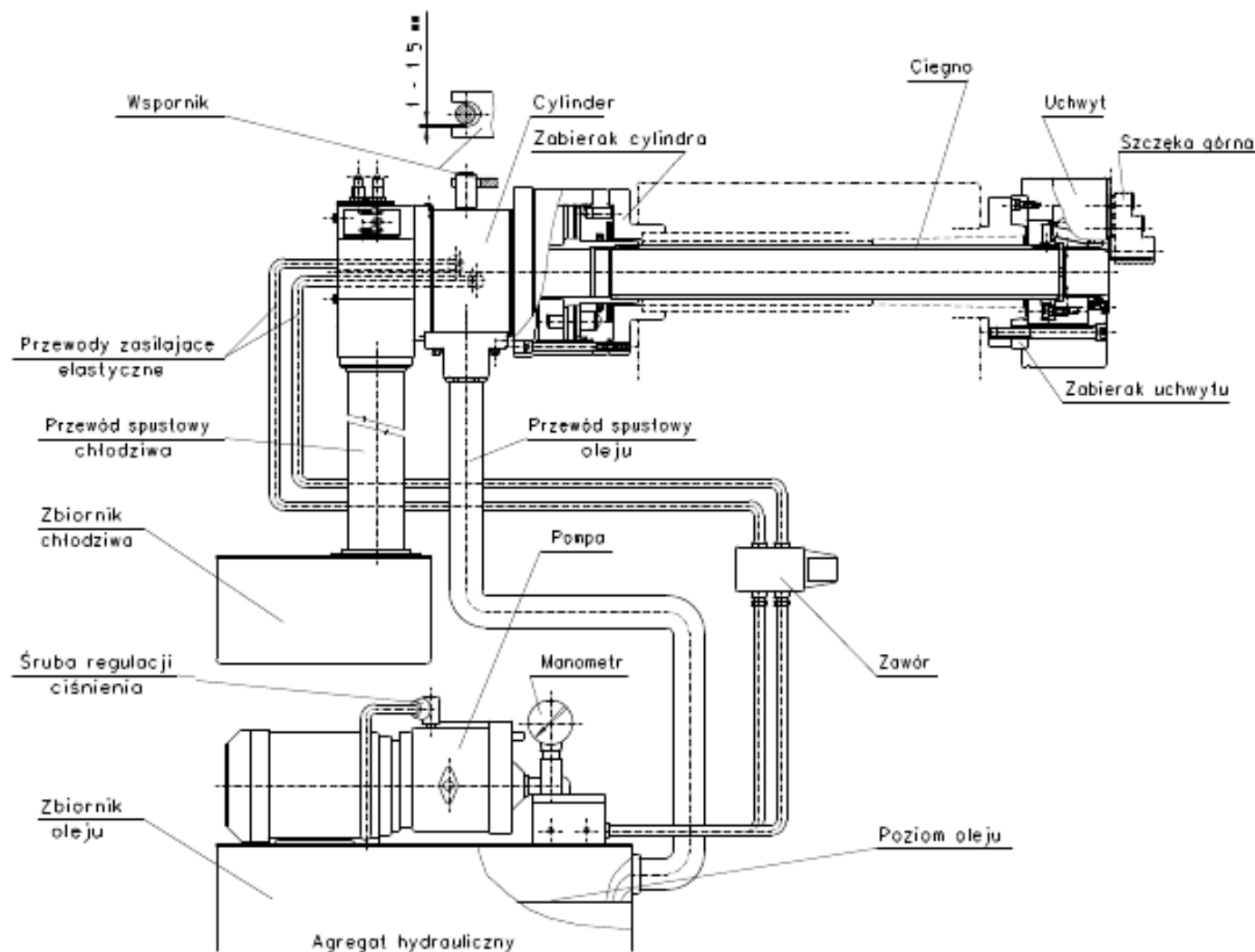




Connecting cylinder type 1305 with power chuck

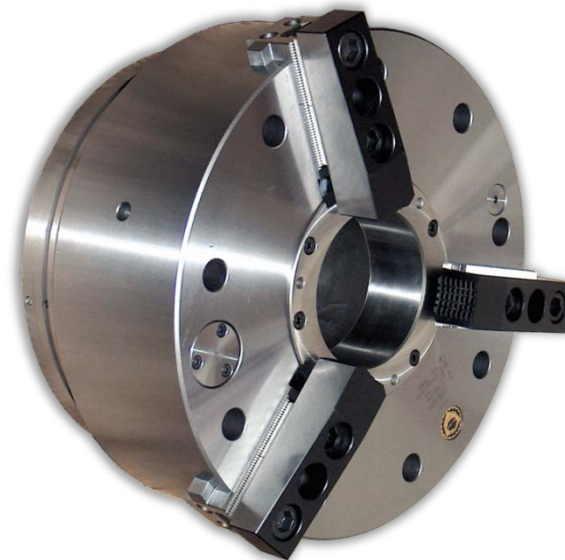
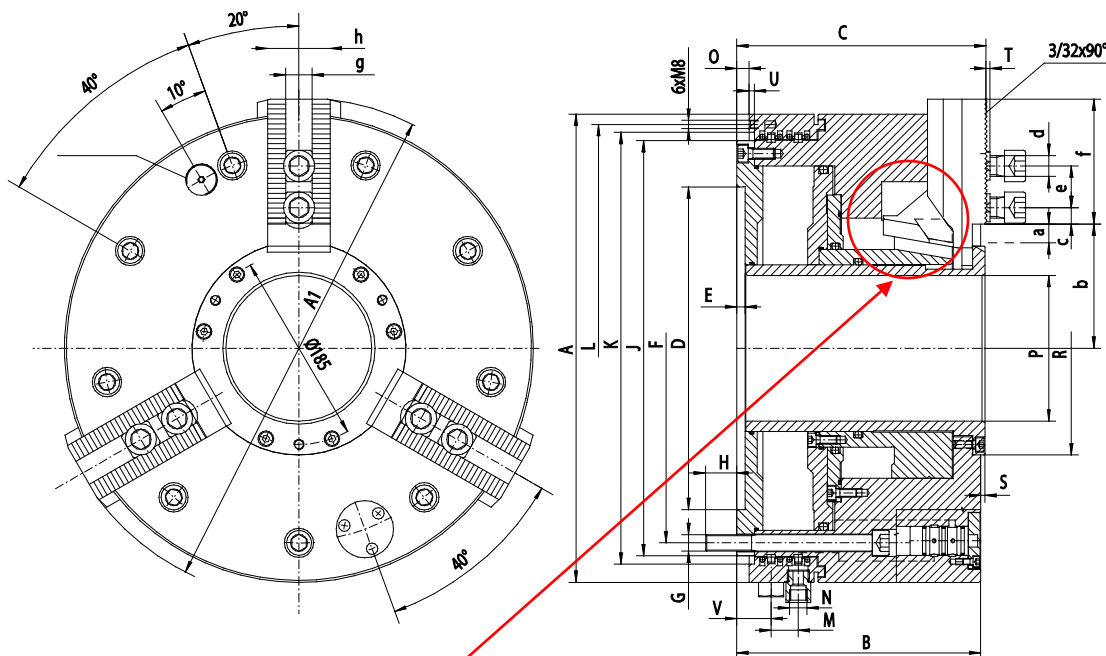


Hydraulic unit for cylinder actuating power chuck



Built-in Power Chuck Type 2500

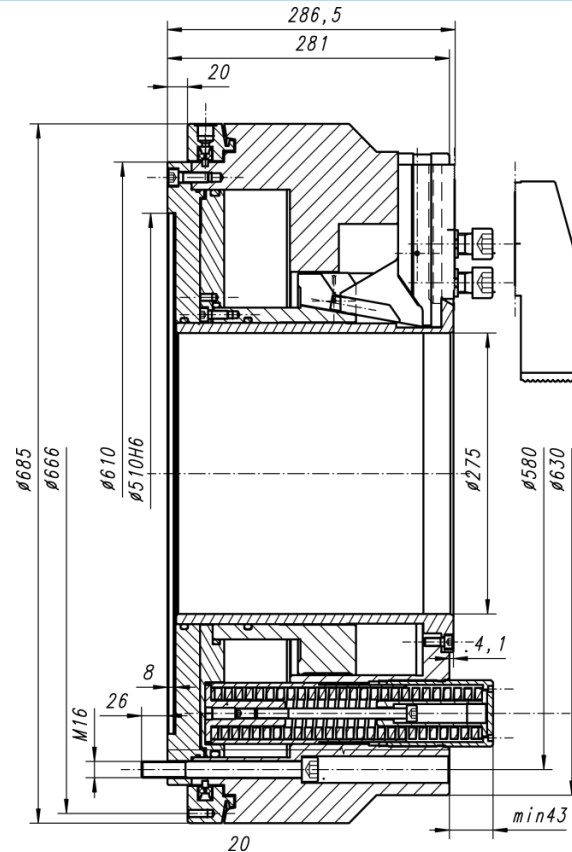
Available sizes:
400 and 500mm



- power chuck integrated with a air cylinder
- safety valve
- designed for gripping of tubes or other objects of similar shape
- mounted individually or in pairs– on both sides of the spindle
- two jaw strokes: rapid and slow (gripping)

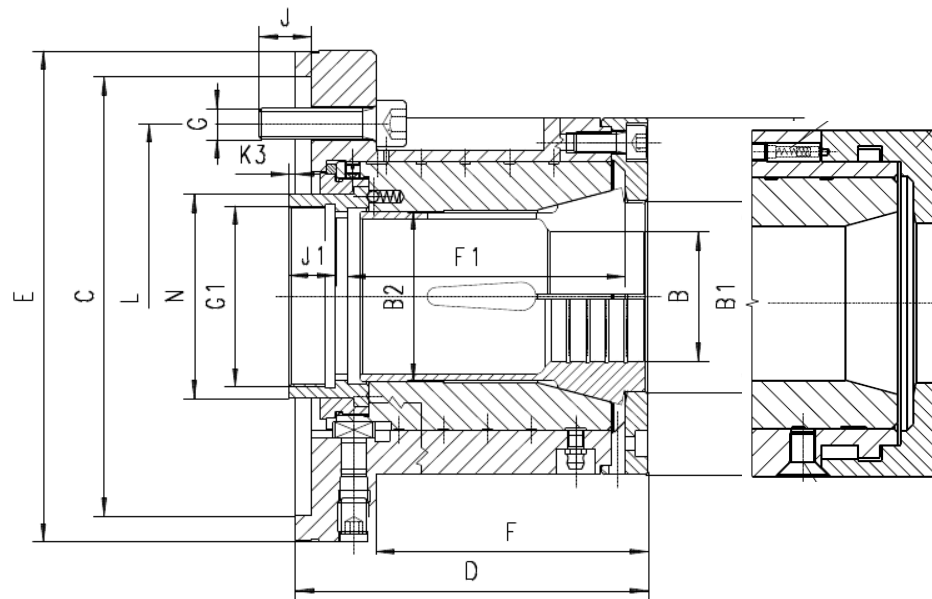


A large, circular, metallic mechanical component, likely a pressure vessel or a large valve, with multiple ports and a central opening. The component is made of polished metal and features a central circular opening. Around the inner circumference of this opening, there are several smaller circular ports or nozzles. The outer edge of the component is also visible, showing a thick, cylindrical structure. The component is shown from a perspective that highlights its circular symmetry and the arrangement of its ports.



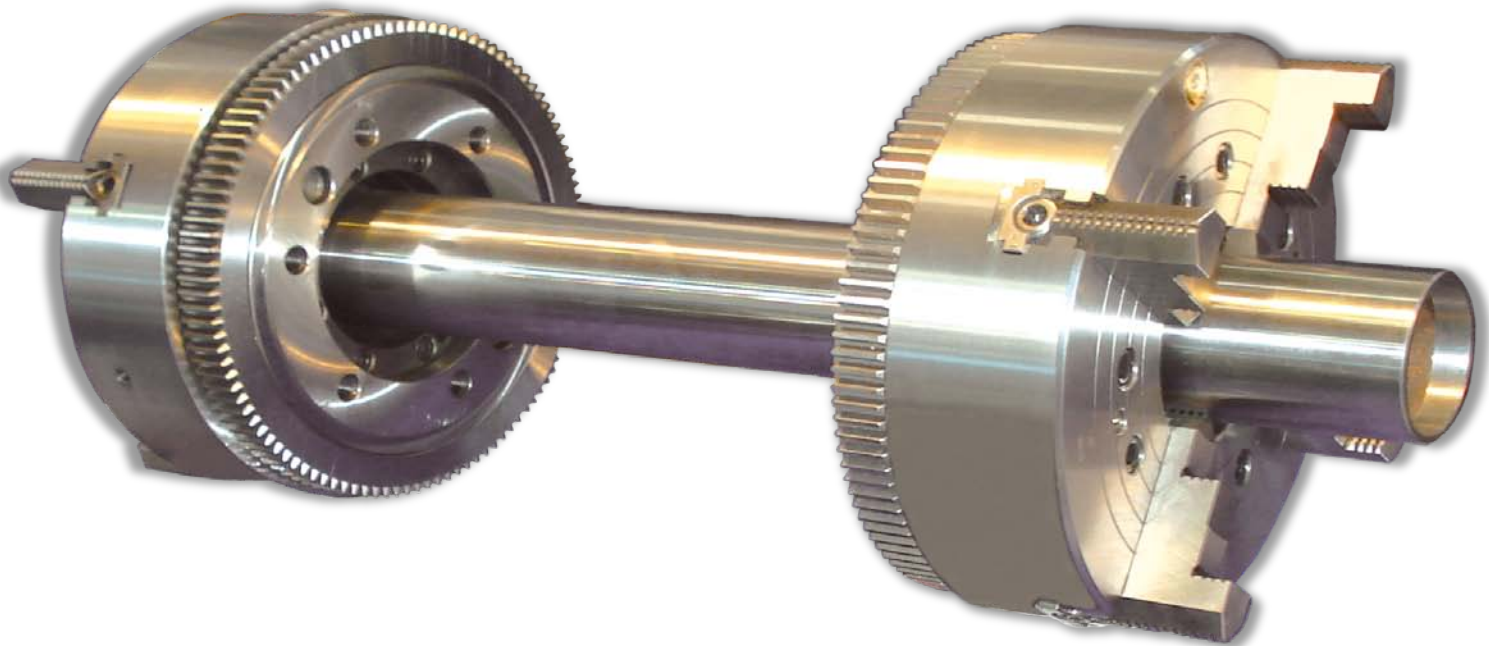
- designed for gripping of tubes or other objects of similar shape
 - mounted individually or in pairs
 - adjustable clamping force
 - high gripping force
 - 1 set of hard upper jaws

Power chucks for DIN 6343 collets Type 2905





Special Power Chucks Type 2635-400mm (Left i Right)



4-jaw self-centering and individually adjustable power chuck is designed for holding long pipes or similar workpieces and to be used with lathes allowing the mounting of two chucks at both ends of the spindle.