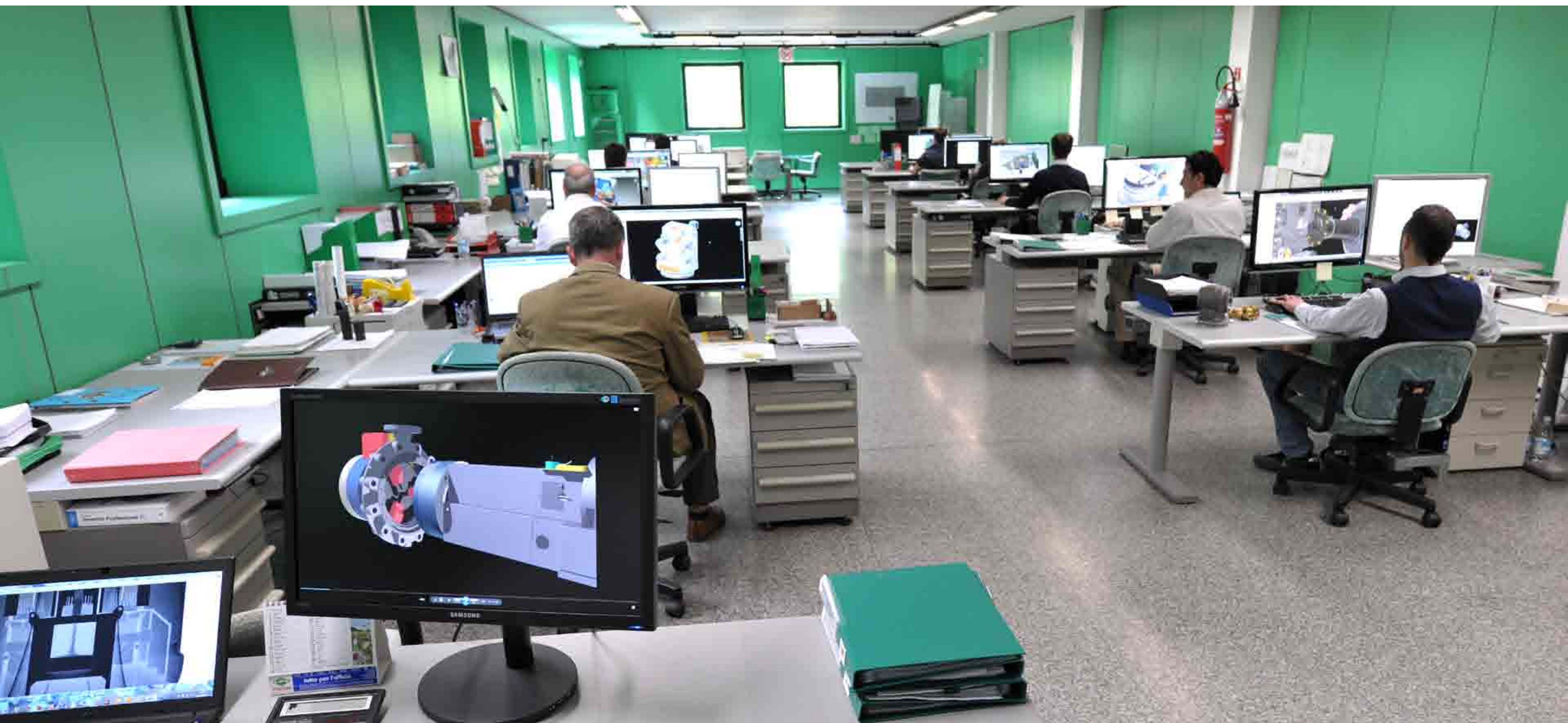




HOW WE APPROACH YOUR NEEDS



MACHINING PROCESS STRATEGY DEPT.

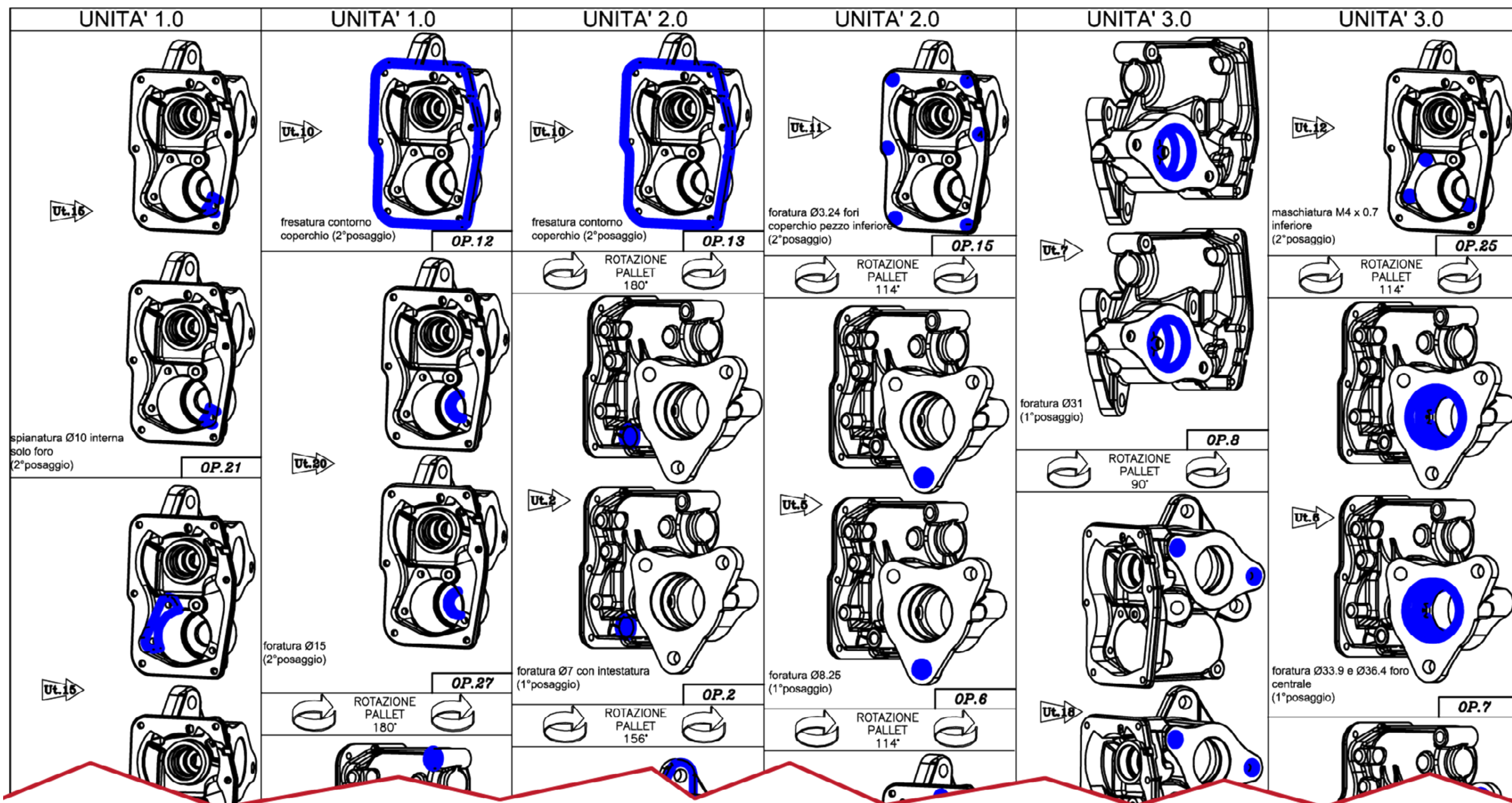


STEP ONE - CLAMPING CONCEPT



Descrizione / Description	
ATTREZZATURA MULTICENTER	

STEP TWO - MACHINING PROCESS



STEP THREE - CYCLE TIME STUDIES

SOCIETA' --- CODICE PEZZO --- MATERIALE

FACCIA	OPERAZIONE	Descrizione OPERAZIONE	...da fare dopo la	e dopo la ...	e dopo la ...	e dopo la ...	ok precedenza?	...DA FARE PRIMA DELLA	E PRIMA DELLA	E PRIMA DELLA	E PRIMA DELLA	OK?	P(rima)/U(ltima)	OK?	...subito prima della...	OK?	...subito dopo la...	OK?	Forzare sulla stazione 1..5	OK?	Non mettere su stazione 1..5	OK?	Non mettere su stazione 1..5	OK?	Non mettere su stazione 1..5	OK?	UTENSILE	Num. Utensile	N° pass	Filetat. Maschio/Filiera?	D	Lento	M. Lento	corse rapide nel pezzo	Vt	a Lento	a M. Lento	RPM	T.lavoro per 1 operaz.	Rapido z	Rapido x 0 y	Traslazioni ripetute x-y	N°Traslazioni ripetute x-y			
A	21	Spianatura Ø10 spianatura interna solo piano foro (2°posaggio)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Fresa z=4 Md	u15	2		10,00	9,5		12	180	0,2		5733	0,50	100	200	133	1				
A	20	Spianatura Ø10 spianatura interna (2°posaggio)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Fresa z=4 Md		2		10,00	44		12	180	0,2		5733	2,30			133	1				
	50		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																					
	41		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																					
	53		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																					
	44		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																					
	89		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																					
	62		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																					
C	10	Spianatura Ø18 ,5 piano vite foro lungo (1°posaggio)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Fresa z=4 Md	u9	2		18,50	2			250	0,175		4304	0,16	100	200	138	1				
	78		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																					
A	11	Spianatura faccia A coperchio (2°posaggio)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Fresa z=8 Pkd	u3	1		100,00	250			1800	0,8		5733	3,27	100	200						
E	3	Spianatura triangolo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Fresa a spianare saldobrasato z=8 Pkd		2		100,00	80			1800	0,8		5733	1,05				138	1			
	86		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																					
A	12	Fresatura contorno coperchio faccia A sopra (2°posaggio)	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Fresa z=1 Md	u10	1		10,00	325			188	0,12		5988	27,14	100	200						
A	27	Foratura Ø 15 (2°posaggio)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Punta placchette z=2 Md	u20	2		15,00	10		65	150	0,2		3185	0,94	100	200	133	2				
	66		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																					
	61		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																					
	59		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																					
D	1	Foratura Ø7 e Ø5 con intestatura foro a gradini (1°posaggio)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Punta a gradini integrale z=2 Md	u1	2		5,00	34			94	0,2		5988	1,70	100	200	138	1				
	83		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																					
	51		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																					
	65		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																					
B	28	Spianatura attacco ovale (2°posaggio)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Fresa z=4 Md	u16	2		40,00	140			750	0,4		5972	3,52	100	200	133	2				
	60		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																					
	69		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																					
A	26	Finitura Ø8,8 foro sagomato con intestatura(2°posaggio)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Fresa z=2 Md	u14	2		16,00	15		30	100	0,25		1991	1,81	100	200	133	2				
	54		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																					
	37		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																					
	45		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																					
	10		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																					

STEP FOUR - COST PER PART ANALYSIS








Dati amministrativi

Giorni lavoro annui	235	Stima costo attrezzature e testine	€ 190.400	5	Durata anni
Anni investimento	10	Stima costo utensili	€ 42.000		
Resa oraria stimata	85%	Materiale lavorato	Alluminio con PKD		
Persone per impianto	0,5	Durata stimata taglienti in numero di op.	500000	5	Riaff. Utensili
Costo orario personale	40	Potenza installa impianto Kw	100		
Costo stimato manutenzione (% val. imp.to)	5%	Fattore utilizzo potenza	30%		
Coeff. Rival. Annuo impianto (inflaz.)	3%	Costo energia elettrica €/kWh	0,15		
Coeff. Sval. Annuo impianto (obsol.)	15%				
Costi generali stimati	25%				

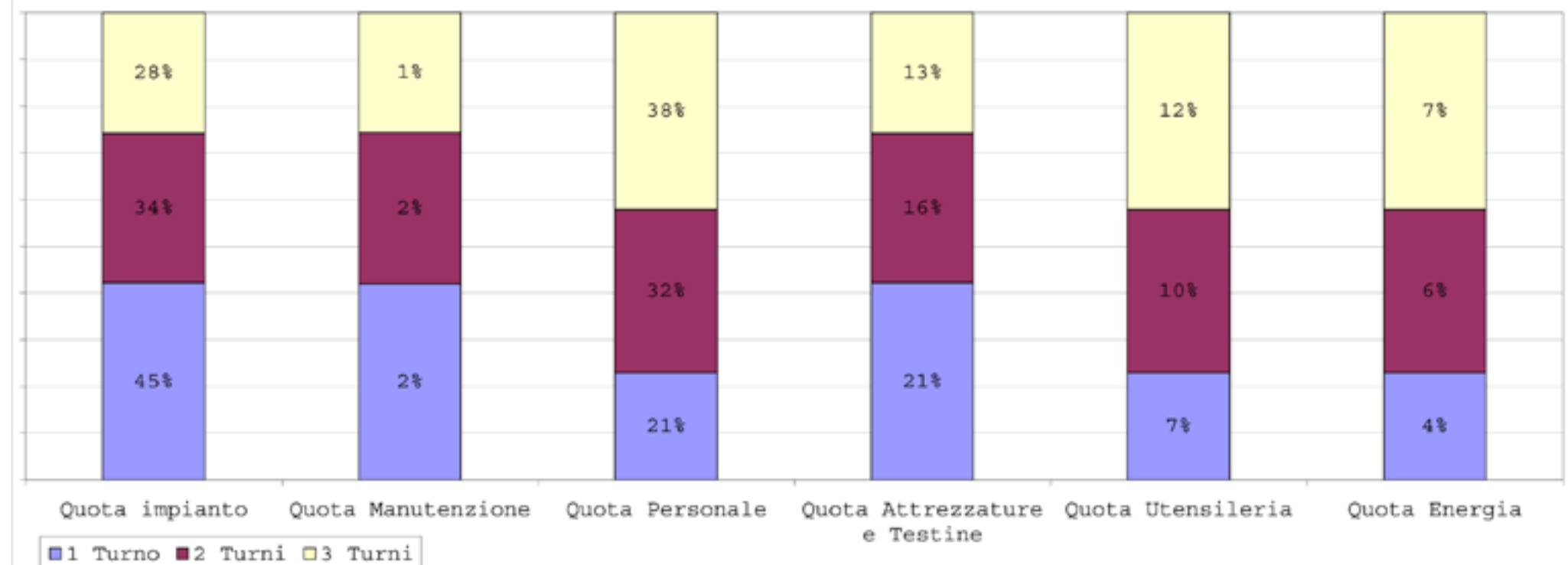
Parti impianto

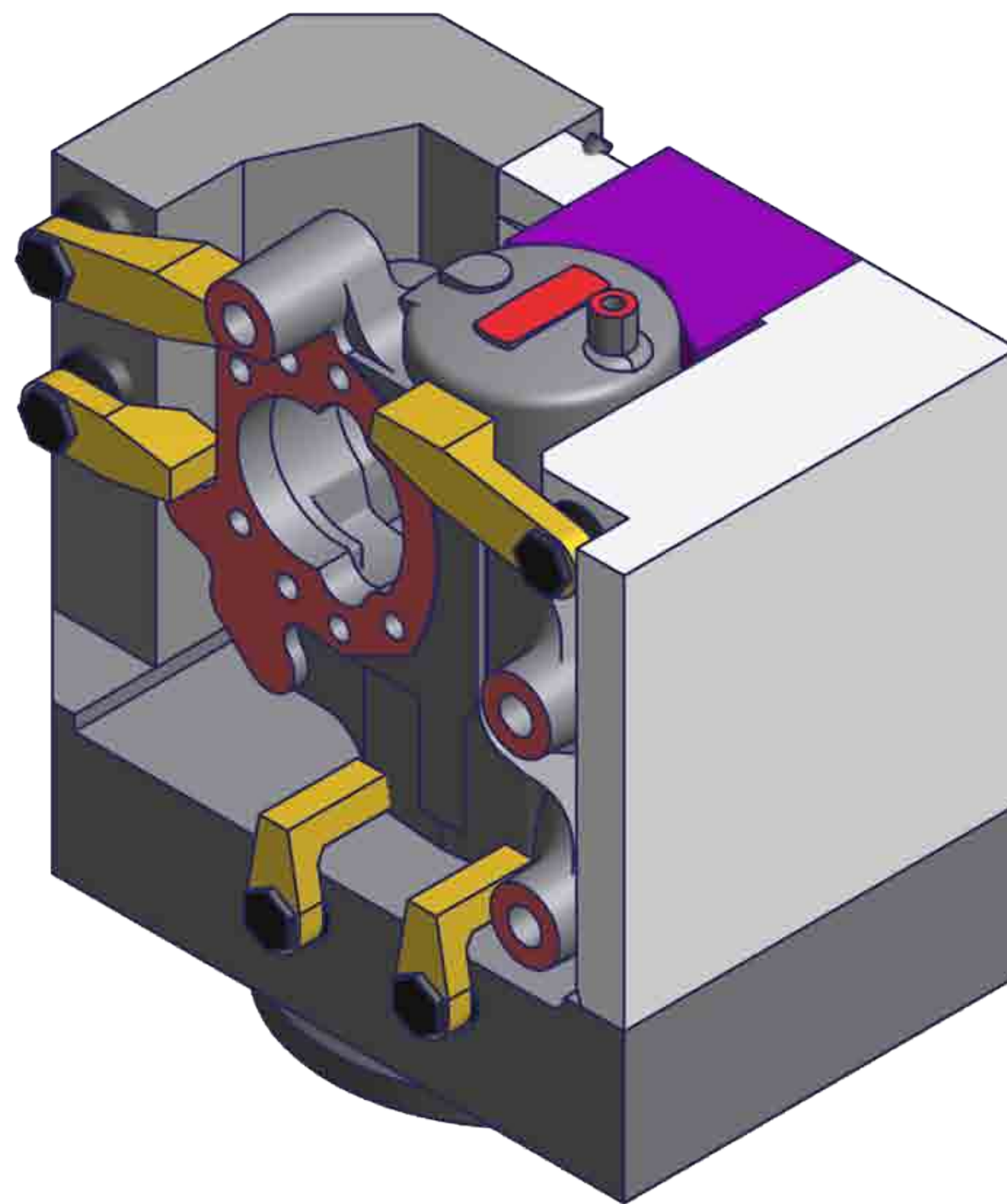
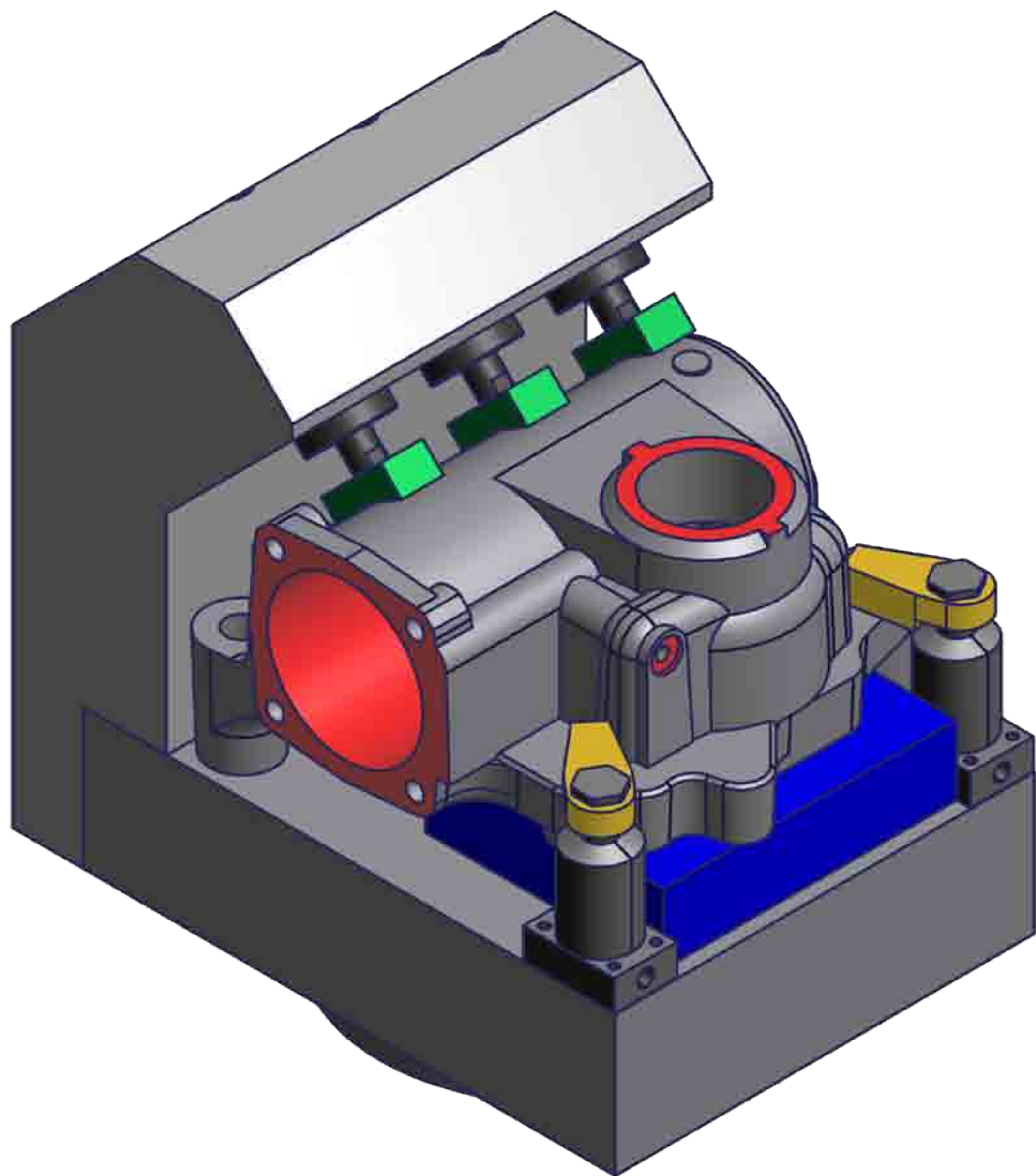
Macchina
Vasca lubr. Esecuz. Standard
Distrib. Centralizzato 4 vie
Magazzino utensili 24 posti
Refrig. Alta press. Mandrino
Incr. Potenza 07 kW
Flangie testine angolari
Allestimento FANUC
Tot Impianto
€ 947.950
Valore impianto termine investimento
€ 264.005

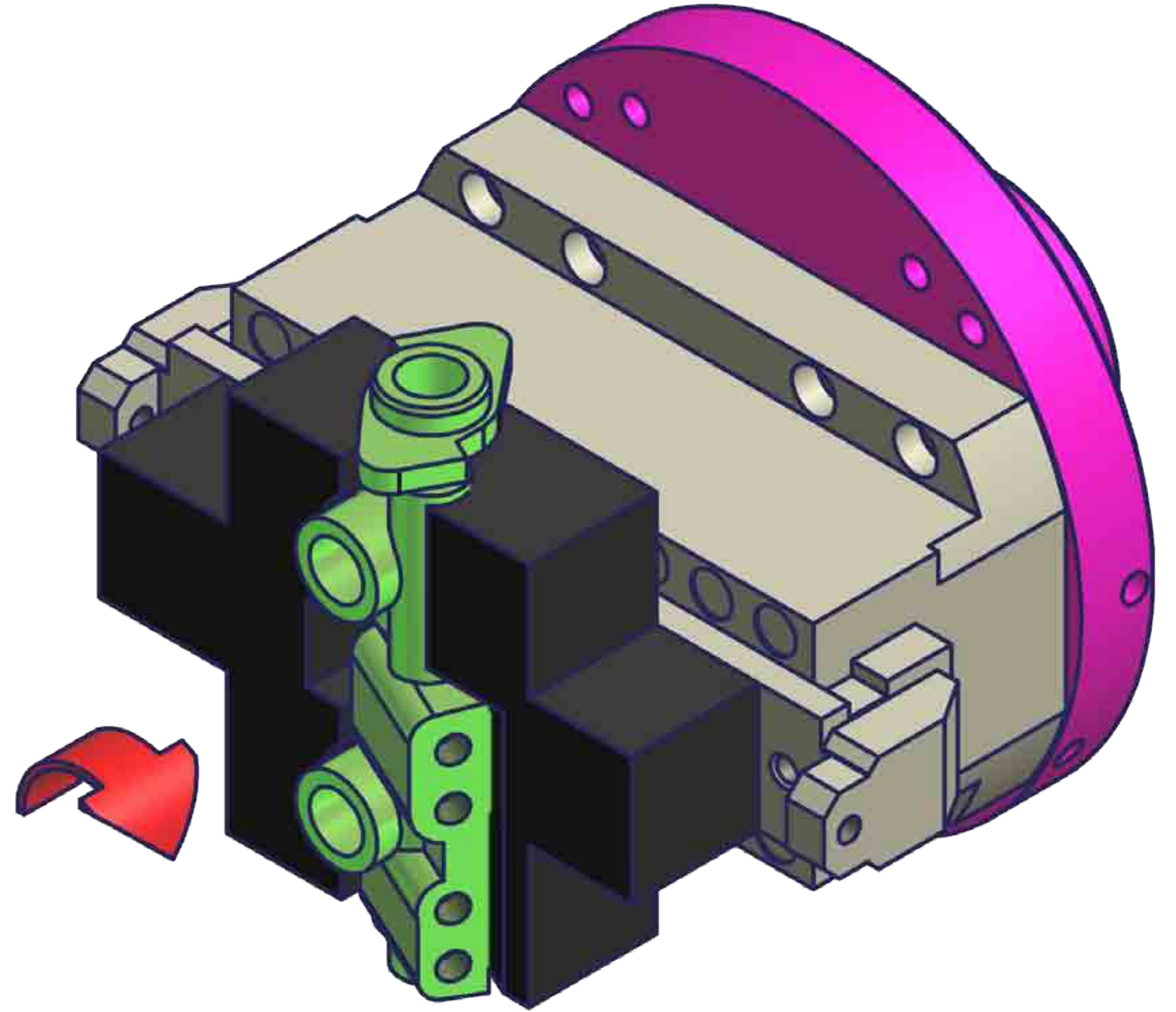
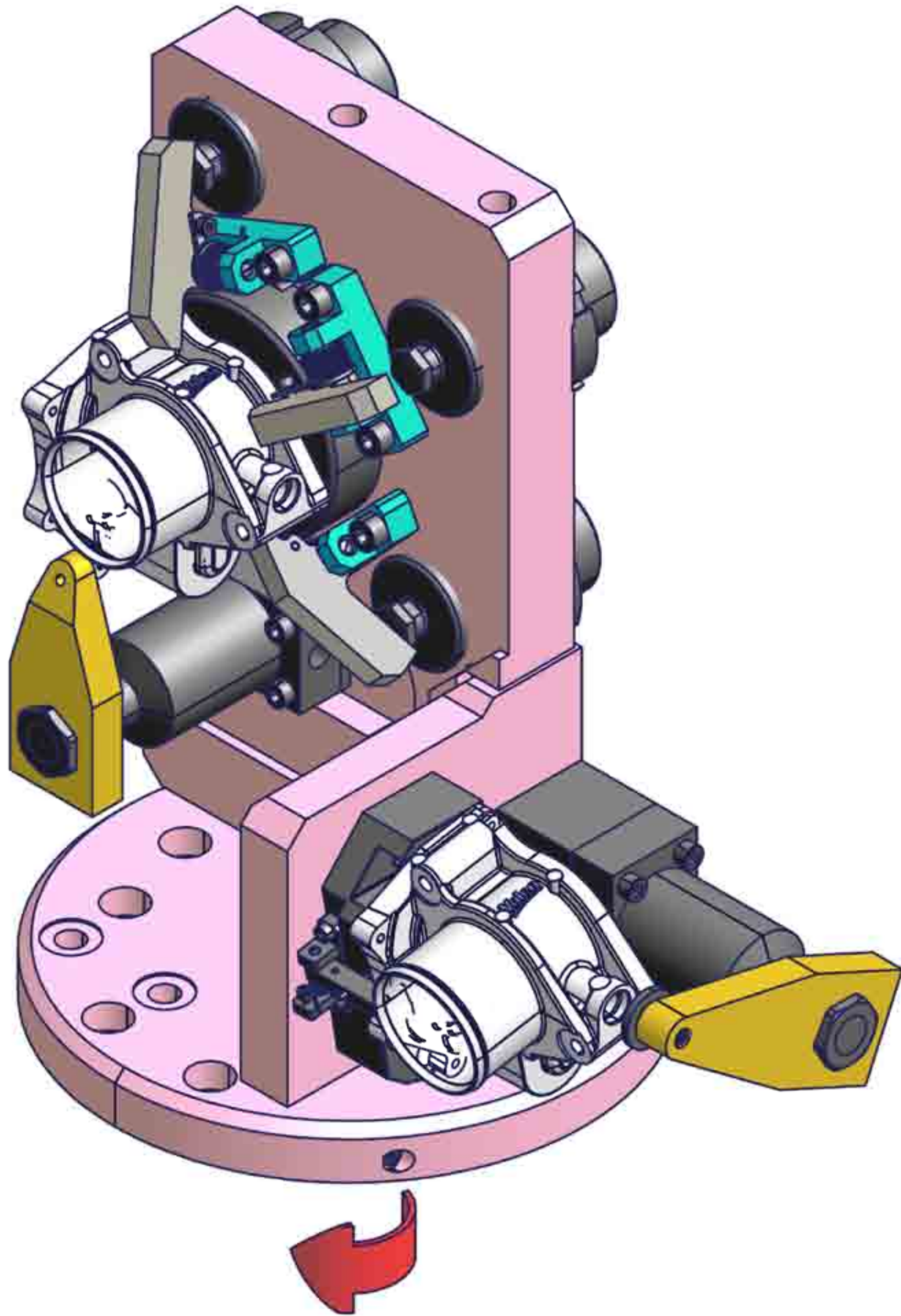
Totale investimento	Impianto	Attrezzature	Utensili	Investimento
€ 947.950	€ 190.400	€ 42.000	€ 1.180.350	

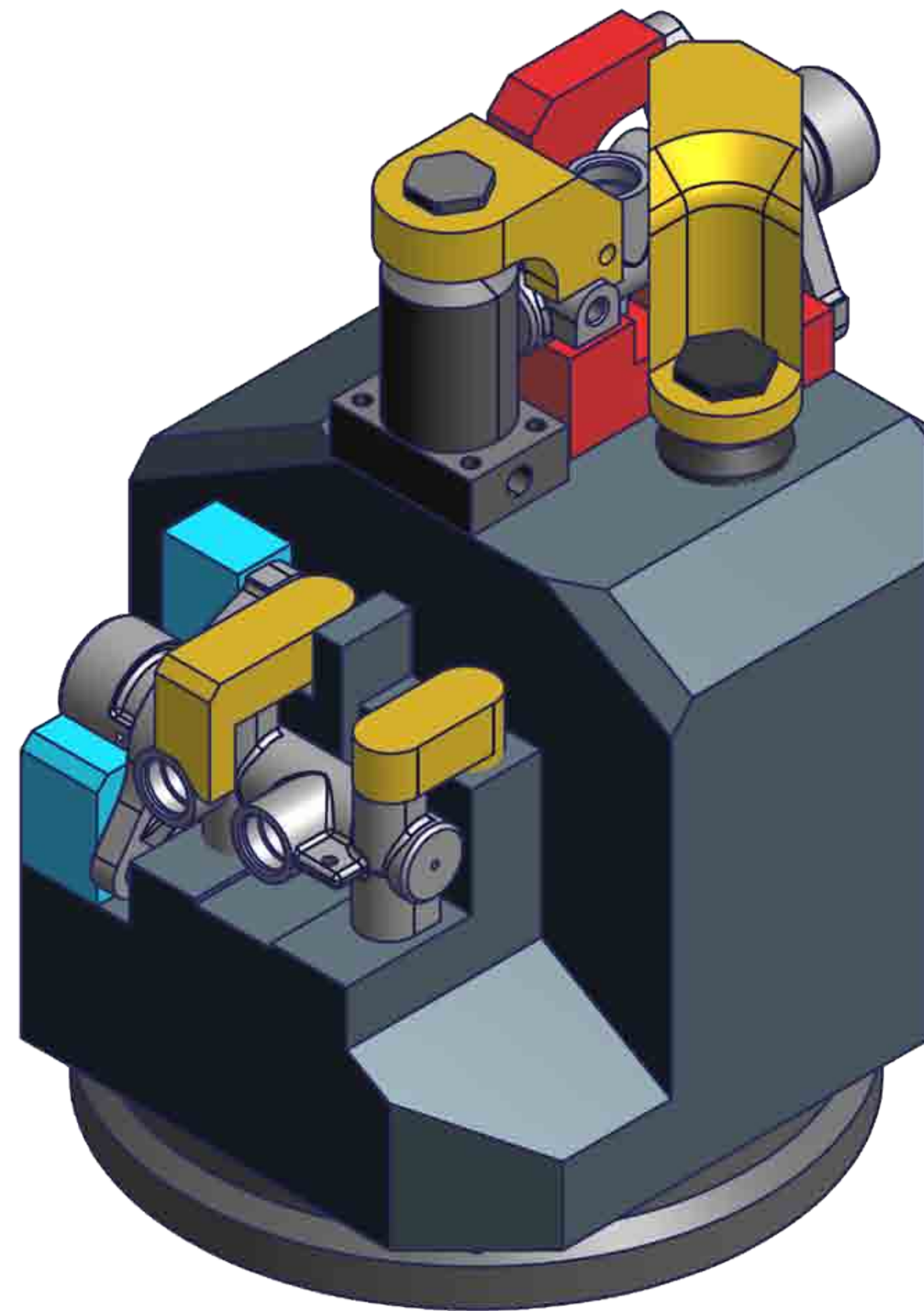
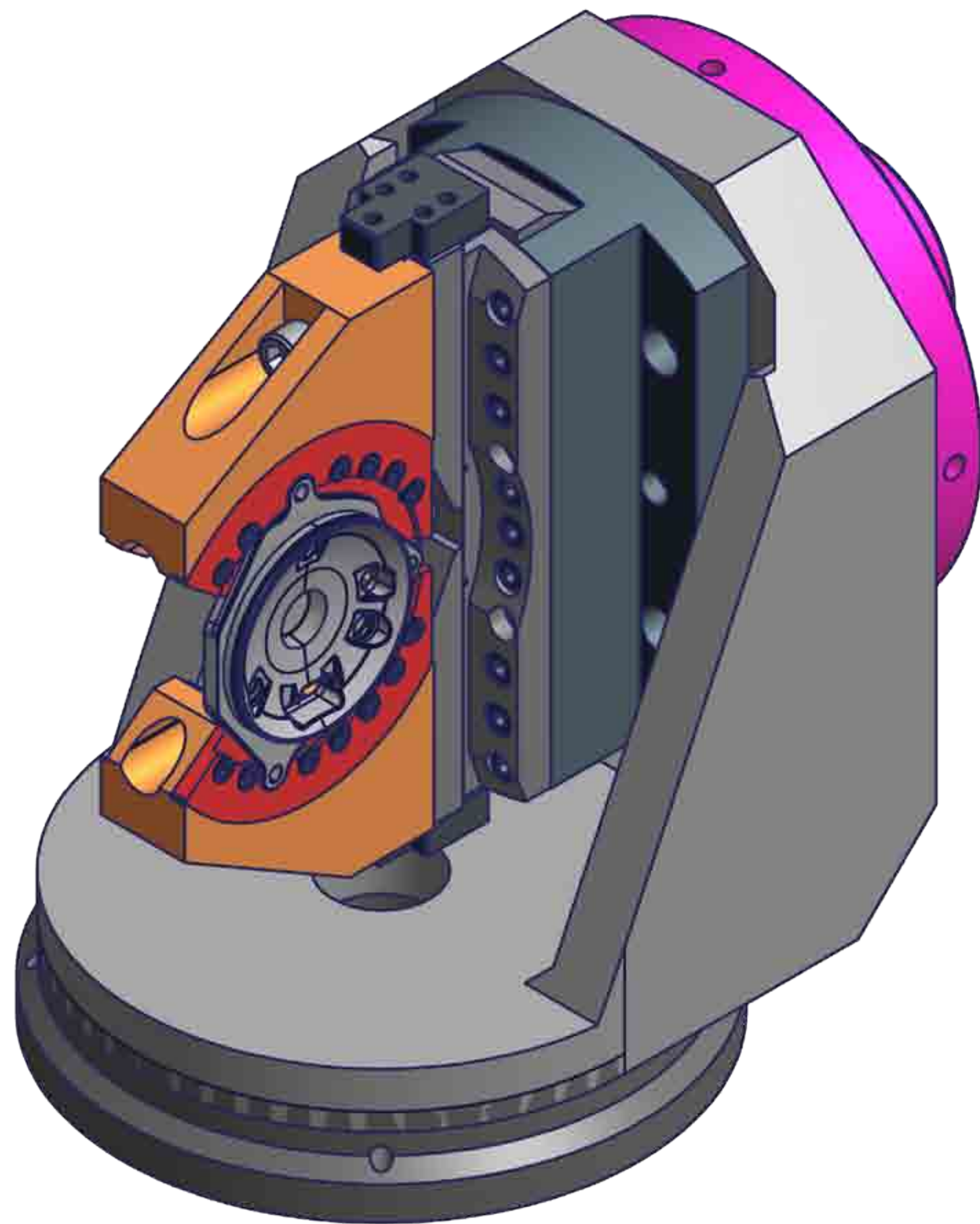
Produzione e Tabella costi pezzo						Tempo ciclo		8
Produzione annua [Pz/anno]	Quota impianto	Quota manutenzione	Quota personale	Quota attrezzature e testine	Quota utensili	Quota energia	Costo pezzo	
								
719.100	€ 0,1123	€ 0,0057	€ 0,0523	€ 0,0530	€ 0,0168	€ 0,0100	€ 0,3126	
1.438.200	€ 0,0562	€ 0,0029	€ 0,0523	€ 0,0265	€ 0,0168	€ 0,0100	€ 0,2059	
2.157.300	€ 0,0375	€ 0,0019	€ 0,0523	€ 0,0177	€ 0,0168	€ 0,0100	€ 0,1703	

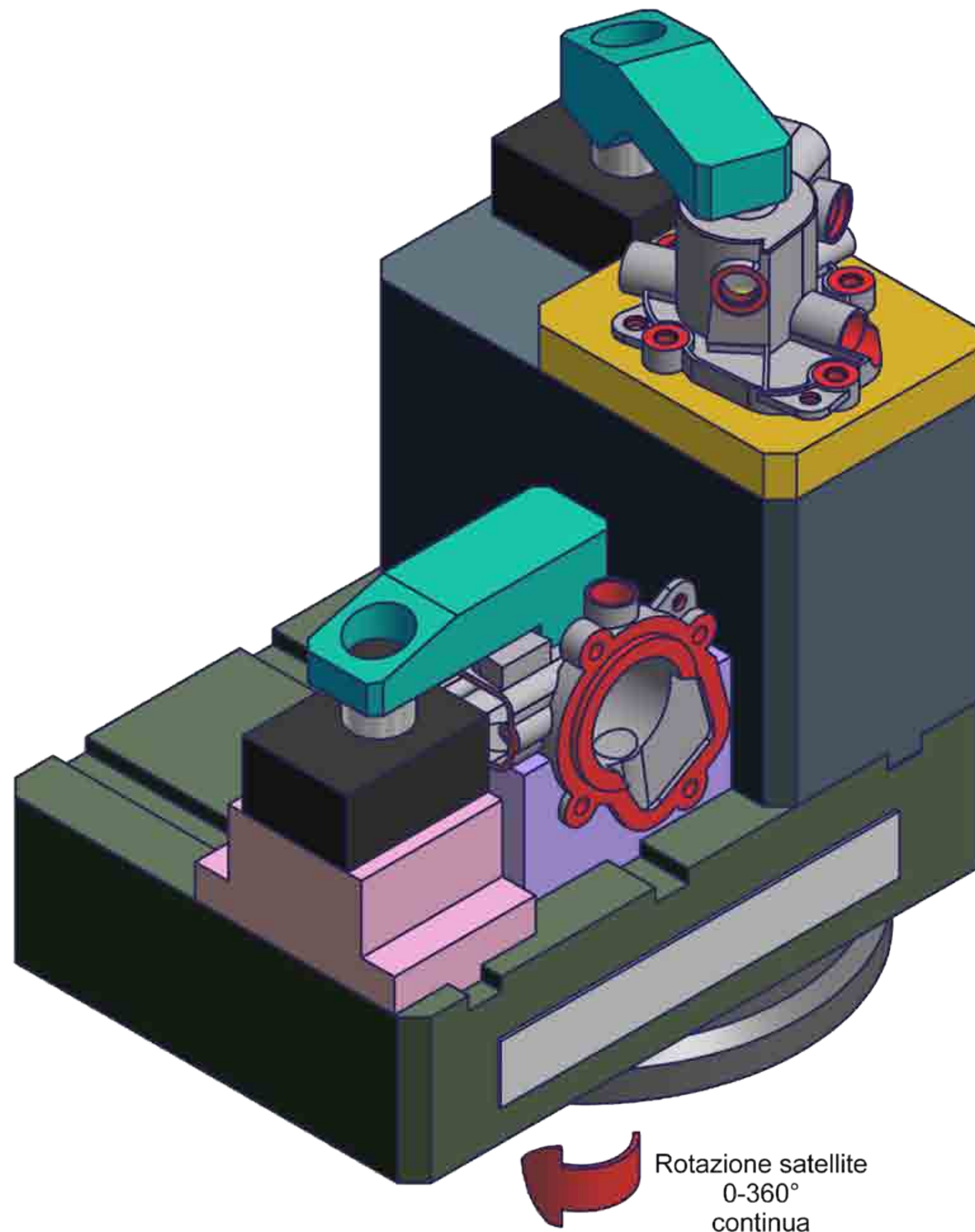
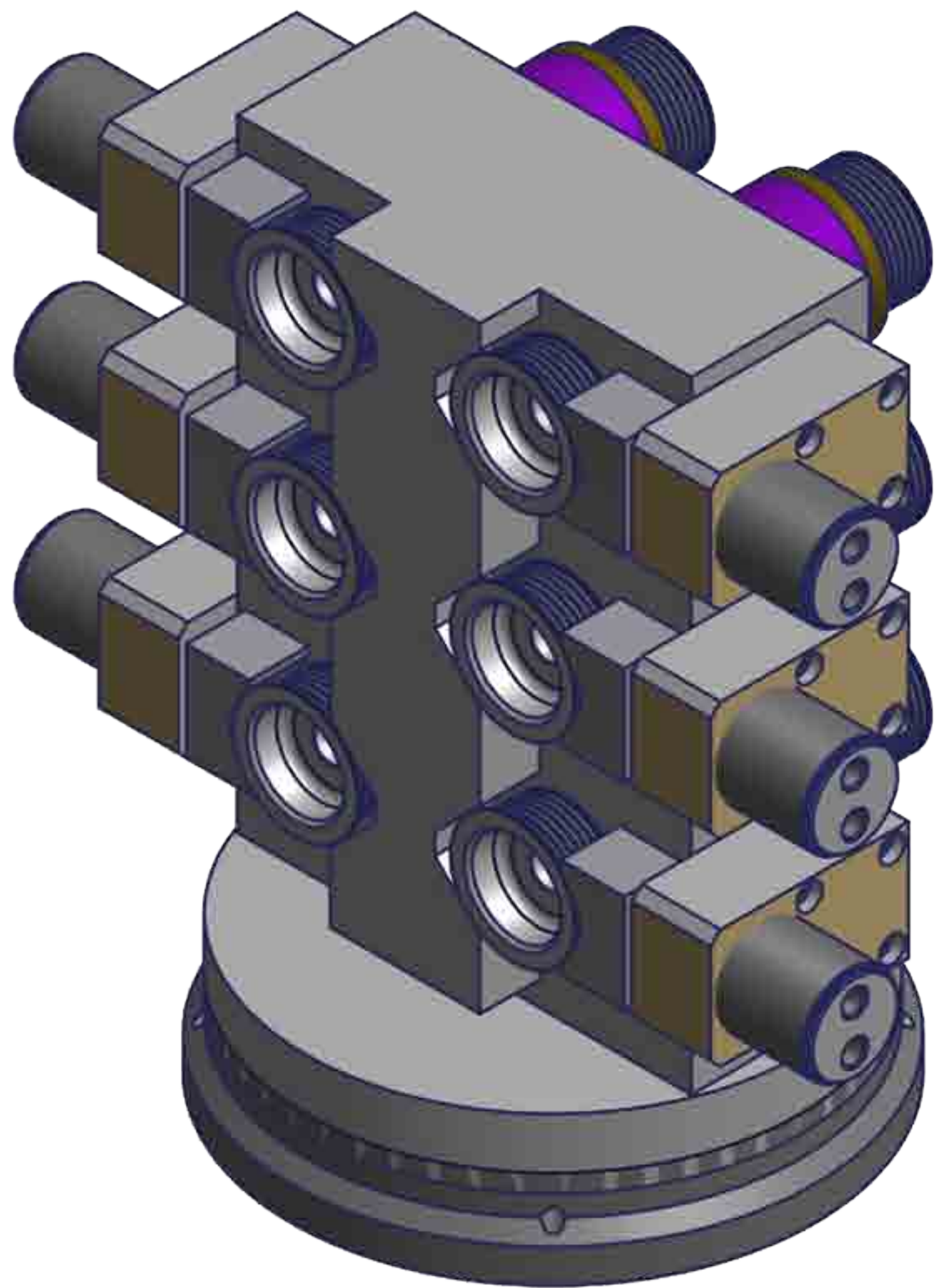
Ripartizione costi pezzo

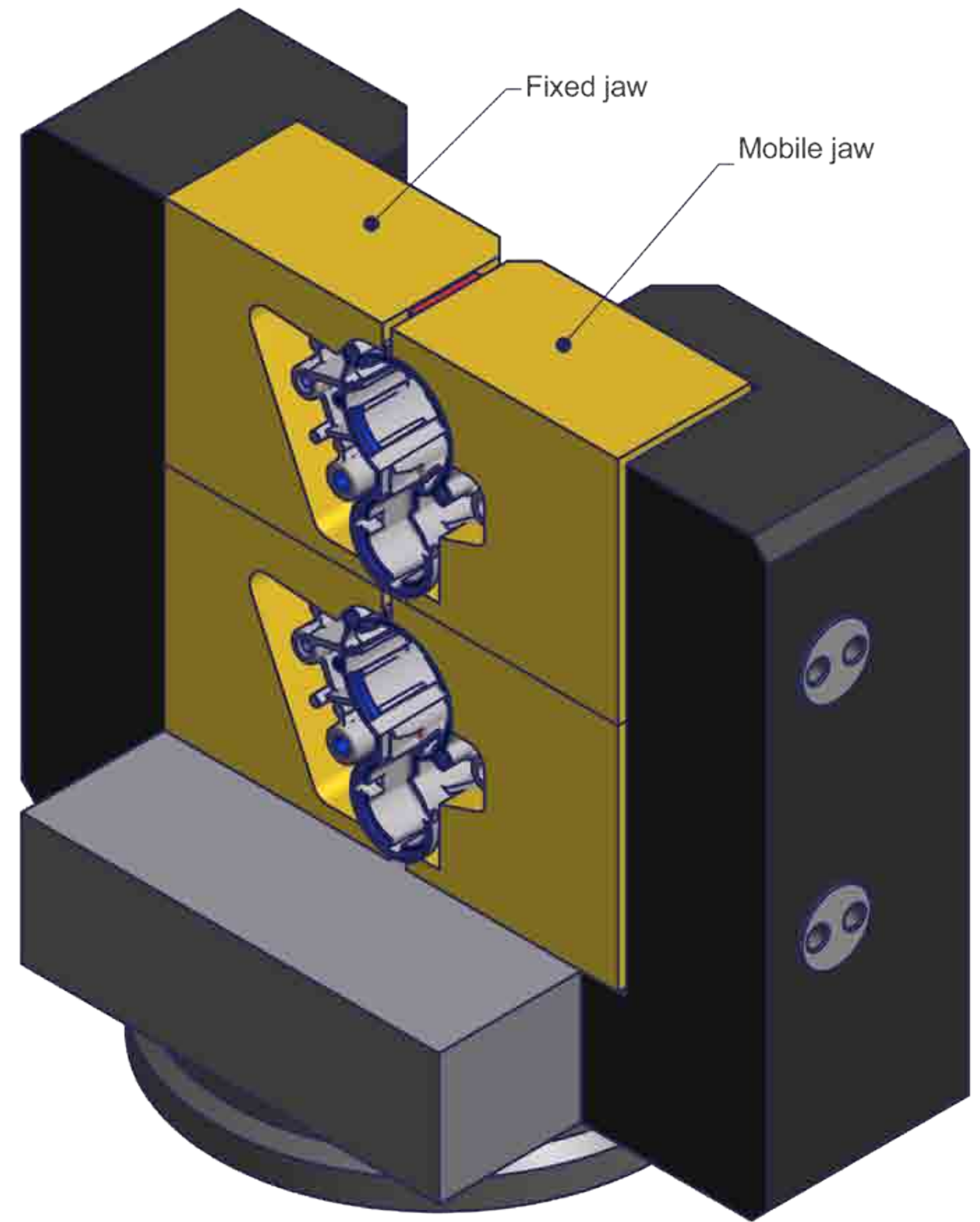
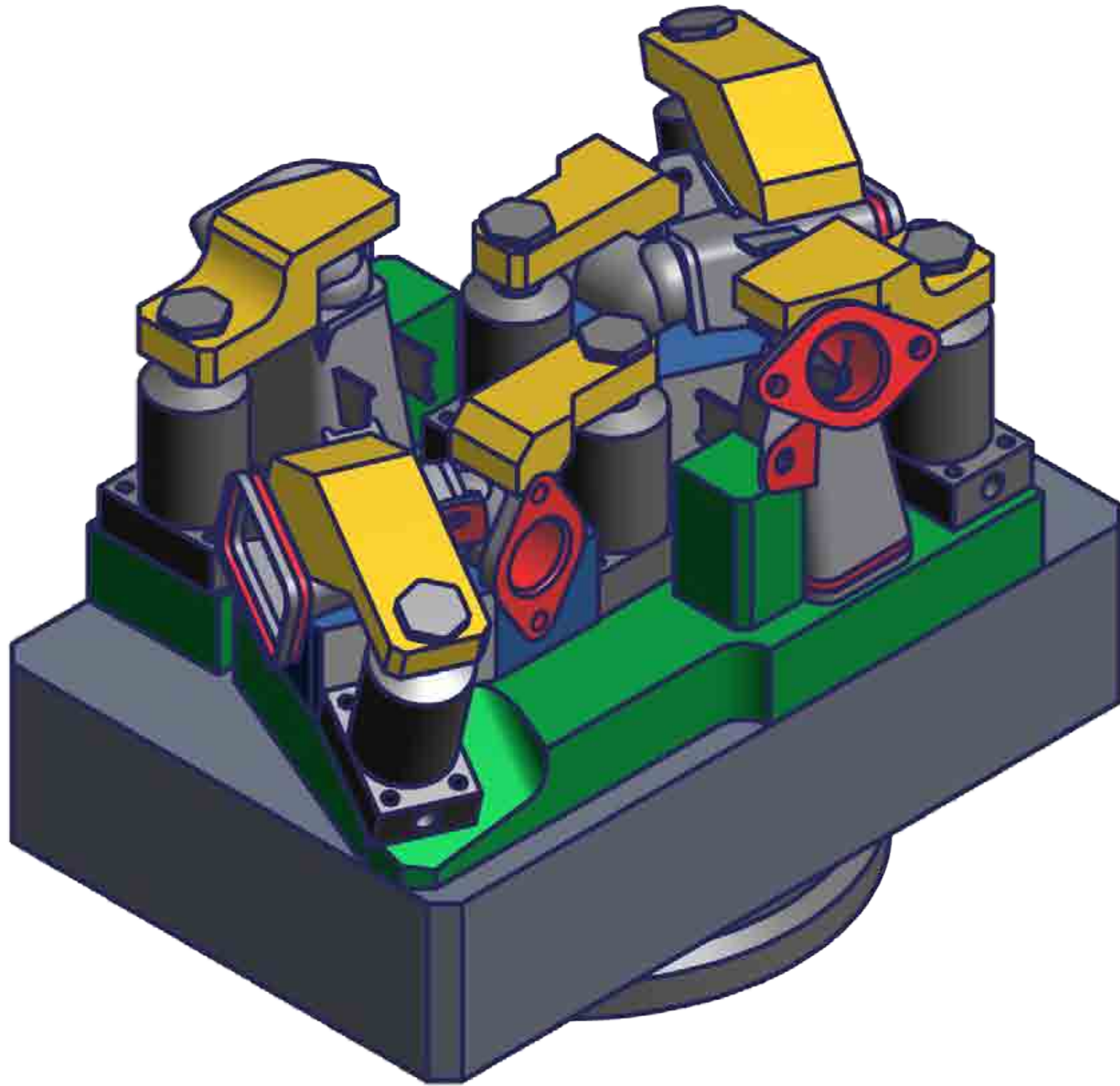






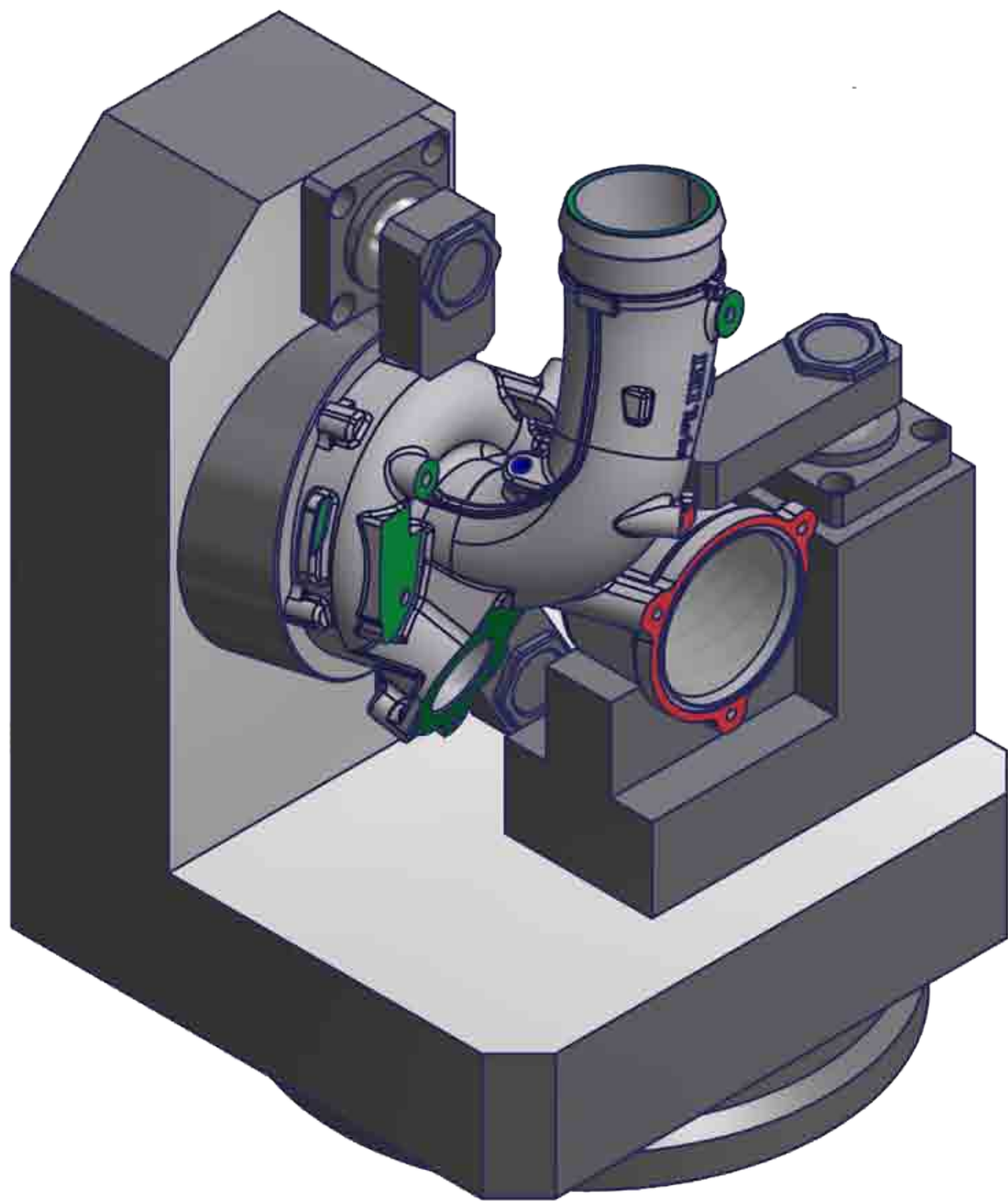




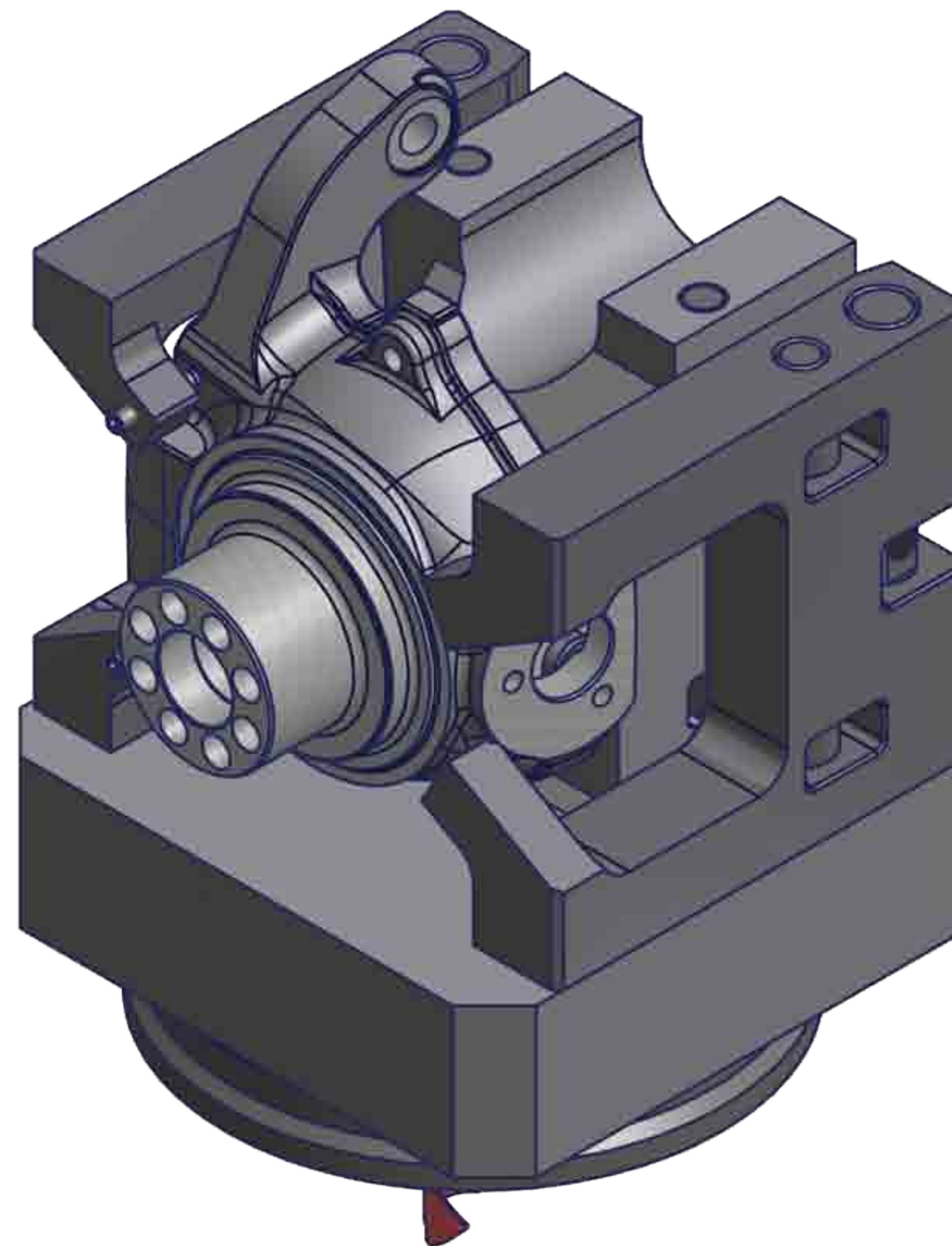
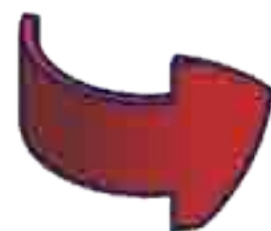


Satellite rotation
0-360° continuos

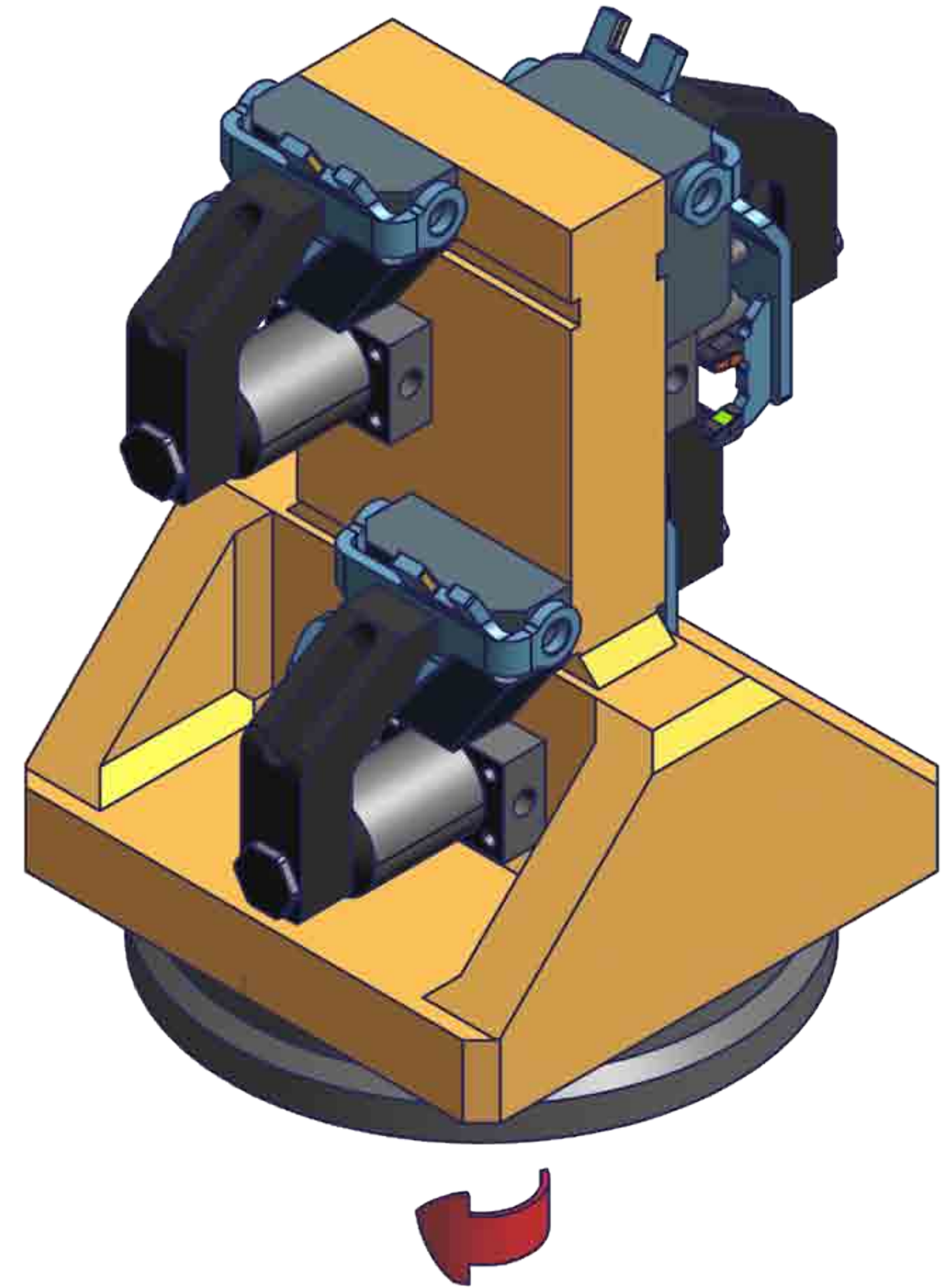
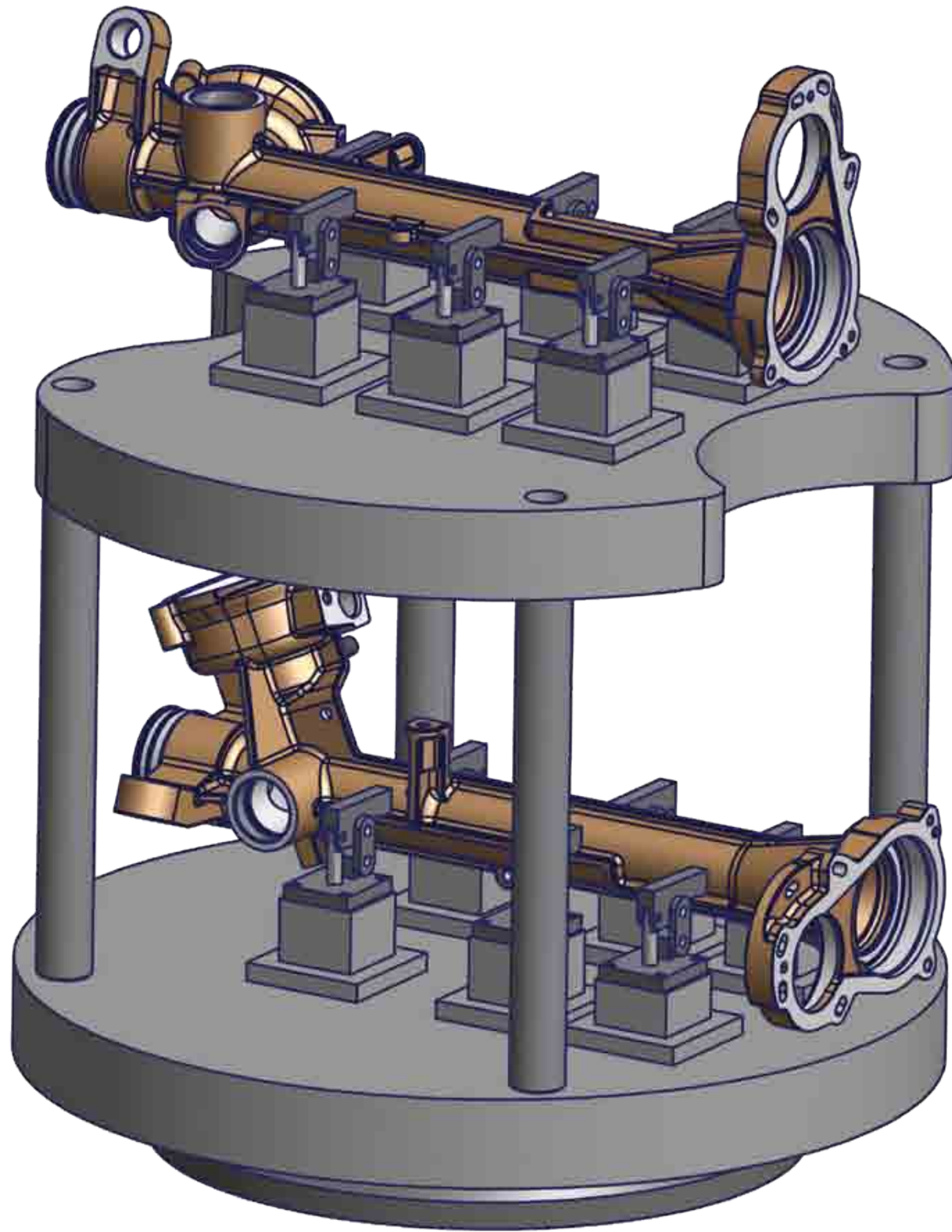




ROTAZIONE PALLET
0-360° CNC
IN CONTINUO



ROTAZIONE
PALLET 0-360° CN
IN CONTINUO



PORTA SOLUTIONS®