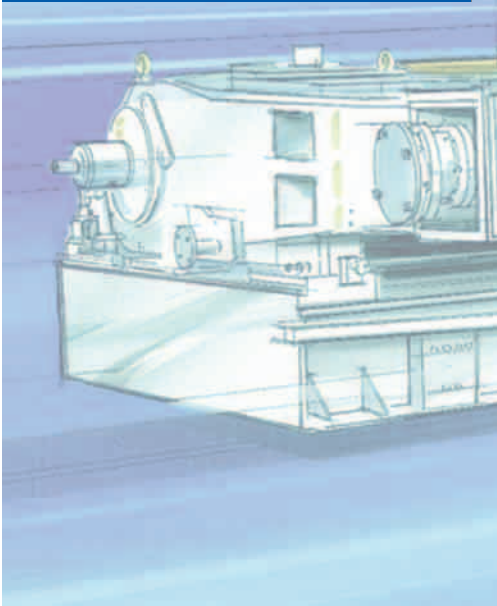
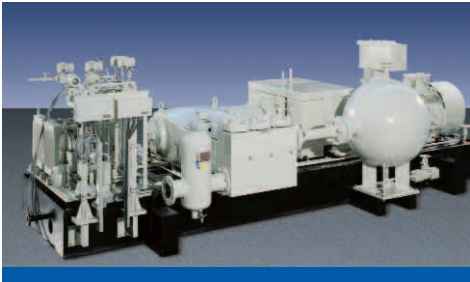


Pumping Solutions for Oil and Gas Industry

URACA



Methanol
Produced water
Hydrocarbon condensate
Refining residues

Hydrostatic pressure tests
Injection Pumps
Process
Pumps
Pump units up to 2.800 bar
40.000 psi

Polymer Solution
CO₂

URACA Pumping Solutions

With experience and know-how developed in the field of high pressure pump technology and process requirements, URACA is a leading supplier and ideal partner for the oil and gas industry.

Due to our long term co-operation between engineering companies and end users, URACA technology has become state of the art and is continuously subject to technical developments based on the

extensive experience gained in the field of process applications. URACA offers extensive project engineering and management services. The units are designed according to project specifications in conformity with International Codes and Standards.

Quality has first priority, and URACA's quality assurance system according to DIN EN ISO 9001:2000 is the guideline for all supplied equipment.

URACA scope of supply including service

Pump units with electric motor, diesel or gas engine drives
Variable speed drives to process requirements
Auxiliary systems matching pumped fluid characteristics
Pumping systems for hydrocarbons or chemical injection requirements
Pulsation dampening devices according to International Codes
High spare parts stock availability
Individual inspection during manufacturing process
2 or 3-D CAD design
Extensive documentation supplied to project requirements
Pulsation and mechanical response study for the pump piping system
Professional project engineering
Responsive contract management

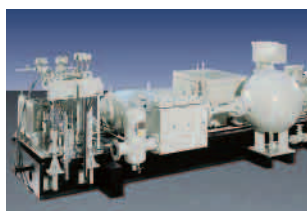
Typical Upstream Applications

- Methanol injection
- Produced water injection
- MEG / TEG injection
- Hydrocarbon condensate injection

URACA has extensive experience related to injection units for on-shore and offshore applications. Materials of construction are selected to meet fluid and process conditions. Components and units

are shop assembled and string tested before shipment.

The decision to offer modular systems reduces cost and installation time, thus minimizing project management and client's field handling at the installation site.

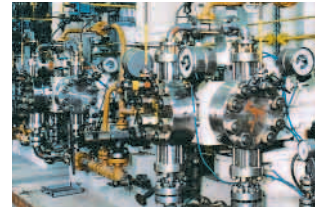


Methanol injection units for North Sea offshore applications.
 Capacity 2 x 45 m³ /h
 Discharge pressure 370 bar
 Power installed 2 x 570 kW

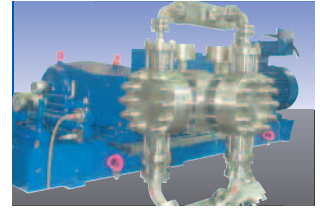
Typical Downstream Applications



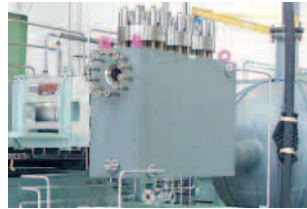
- Condensate feed into cracker process
- Refining residue feed into gasification process
- Carbon oil feed into process
- Olefin feed into process



URACA supplies tailor made 3 or 5 plunger pump units of the Px-80 and KD series for pumping hydrocarbon condensate. The medium ranges from light oil to bitumen and heavy refinery residues with suspended particles of coke, ash or catalysts.

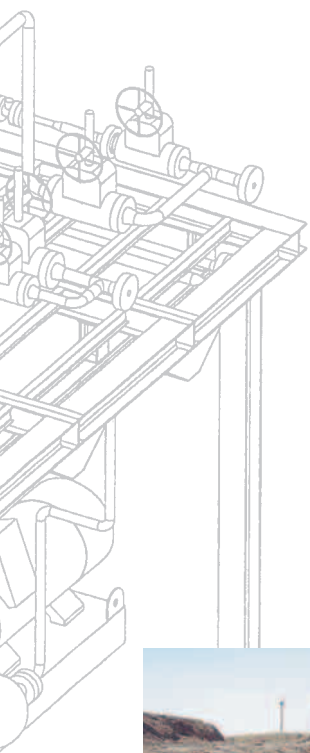


Olefin diaphragm unit for South American refinery.
Capacity 2 x 12 m³ /h
Discharge pressure 25 bar
Installed power 2 x 125 kW



For pumping non-lubricating fluids such as olefins, methanol and liquefied gases, URACA supplies diaphragm pump units of the MP series. This pump type is without any dynamic seals or bearings in contact with the process fluid.

The pumped fluid is conveyed by a hydraulically actuated multi-layer PTFE diaphragm. This allows to run leak-free, completely sealed from the environment and the power end mechanism.



Hydrostatic Pressure Test

- Oil well components
- Oil well heads
- Pipelines

All over the world URACA's KD pumps with diesel engine drives are successfully used for hydrostatic pressure tests on gas pipelines and well head components. Units are supplied either with oil field type skids or built-in container applications.



URACA Pump Range

URACA

Series 600 - Separate gear box, up to 500 kW

Typical data	Pressure (bar)	Plunger-Ø (mm)	Flow rate (l / min)	
			min	max
KD 626	165	90	210	690
	205	80	166	540
	270	70	125	408
	370	60	93	300
	530	50	62	200
	660	45	49	160
	800	40	37	122
KD 629	160	120	509	1300
	235	100	360	920
	290	90	290	740
	370	80	230	585
	420	75	200	510
	480	70	176	450
	560	65	150	385
	655	60	128	327
	945	50	86	220

Series 700 - Integrated gear box, up to 250 kW

Typical data	Pressure (bar)	Plunger-Ø (mm)	Flow rate (l / min)	
			min	max
KD 716	100	60	70	235
	180	45	40	128
	240	40	30	98
	400	32	18	58
	600	28	14	43
	800	22	9	28
KD 724	170	70	100	360
	230	60	70	260
	330	50	46	175
	400	45	37	140
	520	35	30	125
	675	35	23	86
	800	32	18	70
KD 725	225	75	135	475
	300	65	96	339
	400	55	67	235
	500	50	57	200
	620	45	46	162
	800	40	36	128

Series 800 - Heavy duty design with separate gear box

Typical data	Pressure (bar)	Plunger-Ø (mm)	Flow rate (l / min)	
			min	max
KD 822	160	90	100	745
	200	80	75	580
	270	70	60	440
	360	60	42	320
	530	50	30	220
	800	40	20	140
	KD 823	165	110	165
205		100	145	960
260		90	115	770
420		70	70	460
570		60	50	330
820		50	35	225
KD 825	165	140	345	1480
	195	130	300	1275
	225	120	250	1080
	270	110	215	910
	410	90	140	600
	520	80	110	470
	675	70	85	360
KD 827	205	160	530	1900
	230	150	470	1700
	305	130	364	1300
	425	110	275	920
	520	100	210	760
	650	90	170	610

Series Px-80 - 3,5 or 7 plunger types up to 1.600 kW

Typical data	Pressure (bar)	Plunger-Ø (mm)	Flow rate (l / min)	
			min	max
P 3-80	150	130	200	1570
	210	110	150	1100
	315	90	90	700
	450	75	60	500
	600	65	45	375
	840	55	30	250
P 5-80	150	130	300	2600
	210	110	200	1800
	315	90	130	1100
	450	75	100	800
	600	65	65	600
	840	55	45	400
P 7-80	150	130	370	3700
	210	110	260	2600
	315	90	170	1700
	450	75	110	1100
	600	65	90	870
	840	55	65	620

Series MP - Hermetic diaphragm pumps

Typical data	Pressure (bar)	Plunger-Ø (mm)	Flow rate (l / min)	
			min	max
MP 708	185	35	5	35
	250	30	4	25
	350	25	3	17
MP 716	160	50	12	75
	230	42	8	50
	330	35	6	32
MP 724	170	70	27	165
	230	60	20	120
	330	50	13	79
MP 626	180	85	55	290
	270	70	38	200
	350	60	28	135
MP 629	160	120	150	840
	230	100	105	580
	325	85	70	390

URACA Pumpenfabrik GmbH & Co. KG
 Sirchinger Straße 15
 D-72574 Bad Urach, Germany
 Phone +49 (71 25) 133-0
 Fax +49 (71 25) 133-202
 info@uraca.de
 www.uraca.de

Certified acc. to:
 ■ DIN EN ISO 9001:2000 by LRQA
 ■ VGB KTA 1401
 ■ Gost

Further technical data upon request.

Features	Pump Series				
	600	700	800	Px-80	MP
3 plunger design	■	■	■	■	■
5/7 plunger design				■	
Separate gear box	■		■	■	■
Integrated gear box		■			
Crankshaft on roller bearings	■	■	■		■
Crankshaft sleeve bearings				■	
API tube oil system on request	■	■	■	■	■
API gear box on request	■	■	■	■	■
Ball resonator damper	■	■	■	■	■
Stuffing box and valve design, individually matching to fluid handled	■	■	■	■	■
NACE standards on request	■	■	■	■	■