Part number:

HYDROMA HYDRAULICKÉ SYSTÉMY

HIDROMA SISTEMS UKŁADY HYDRAULICZNE

HYDROMA ГИДРАВЛИЧЕСКИЕ СИСТЕМЫ

Combination pumps	Type KKP
LP 160 bar up to 4,60 cm³/rev	HP 700 bar up to 2,71 cm³/rev

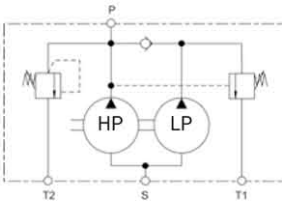
Features

- Compact and light
- Integrated low-pressure unloading valve and fail safe valve (not suitable for continuons rating)
- Can be started in maximum pressure mode
- Self-priming
- Direct installation of motor without bell housing and coupling



Applications

Small power units for industry, construction and rescue operations. With high flow rates in low pressure and low flow rates in high pressure applications.

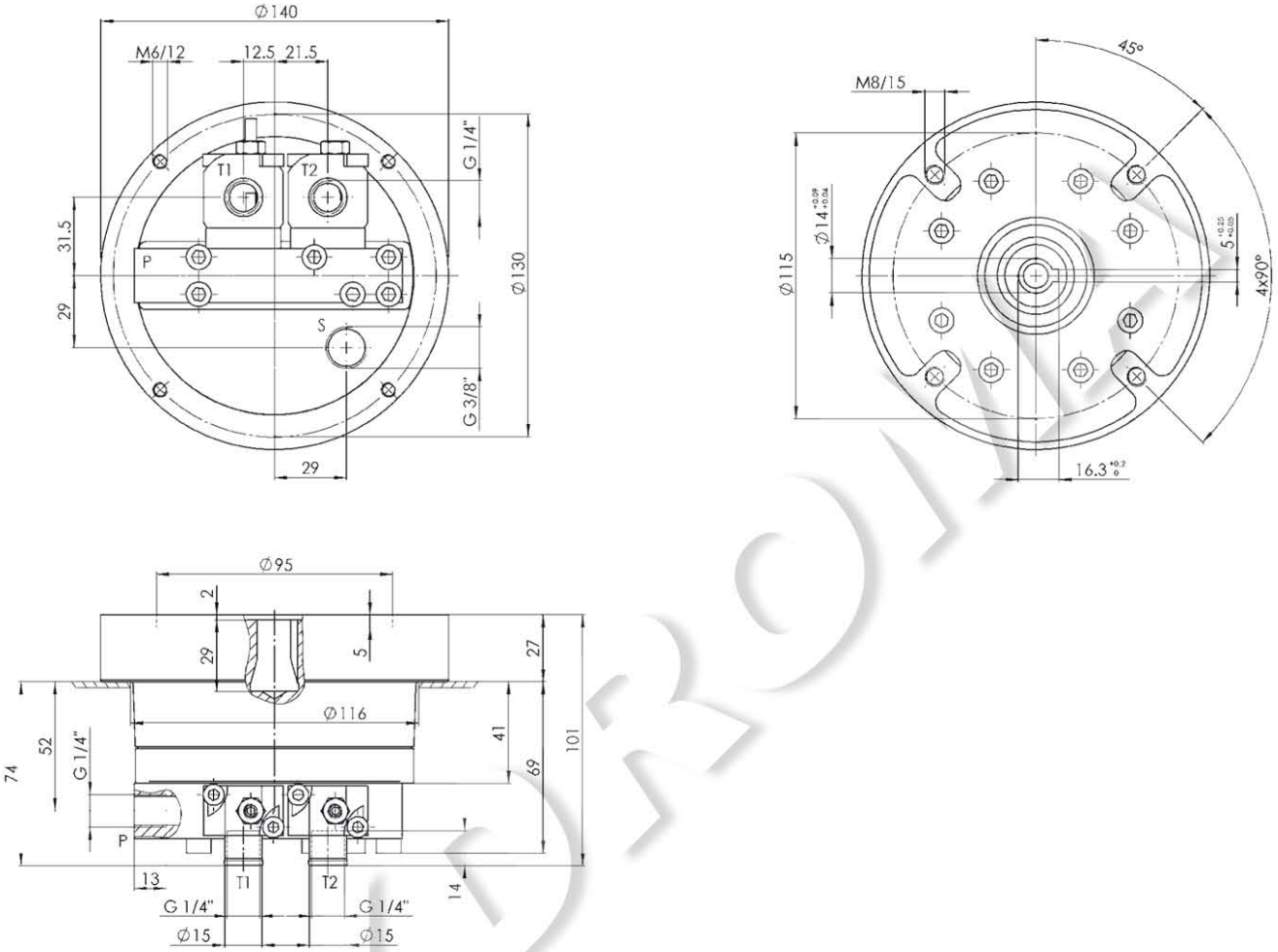


Technical data

Hydraulic fluid	mineral oil according to DIN 51524 (other fluids on request)
Hydraulic temperature range	NBR: -30 to 80 °C
Ambient temperature range	-30 to 50 °C
Viscosity	12 to 220 mm²/s (optimal: 15–35)
Filtration	according to NAS 1638, class 8 or ISO 4406 16/14/12
Material	Valve block and eccentric shaft: steel Pump housing and flange: cast aluminium
Weight/Dimension	see dimension drawings
Installation position	any
Speed range	500–3600 rpm
Direction of rotation	any
Suction height	max. 150 mm

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Dimension drawing 1 size 01 up to 700 bar
Weight 1,9 kg



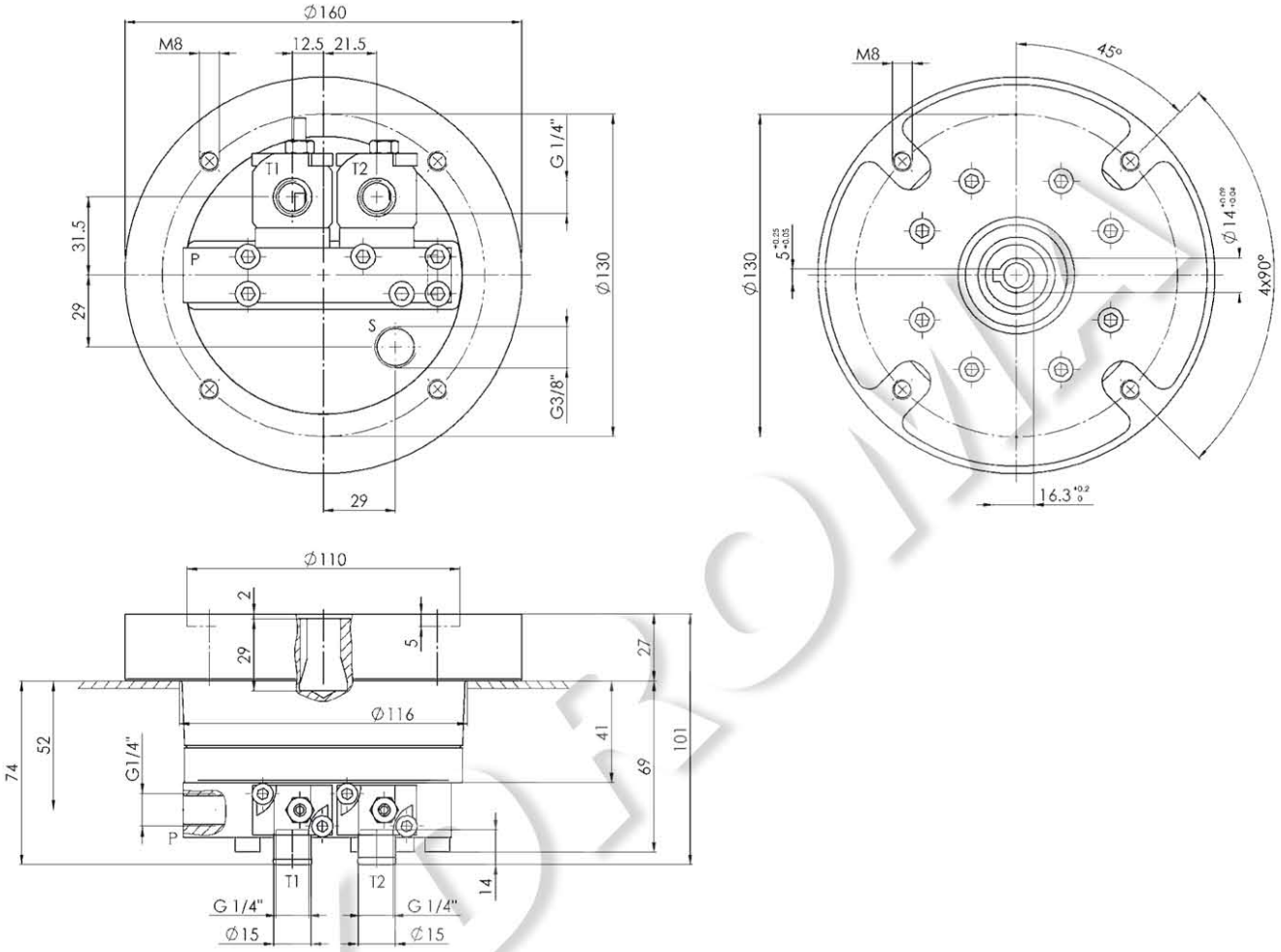
Combination pumps KKP size 01 (dimension drawing 1) up to 700 bar

HIGH PRESSURE Displacement [cm³/rev]	HIGH PRESSURE Operating pressure max. [bar]	LOW PRESSURE Displacement [cm³/rev]	LOW PRESSURE Operating pressure max. [bar]	Displacement [LP+HP]	Motor installation dimensions DIN 42677	Speed max. [rpm]	Article no. [NBR]
0.12	700	0.94	60	1.06	*71	3600	66176
0.17	700	0.94	60	1.11	*71	3600	61911
0.17	700	1.85	60	2.02	*71	3600	61910
0.24	700	0.57	60	0.81	*71	3600	69551
0.24	700	1.85	60	2.08	*71	3600	61909
0.24	700	2.41	60	2.65	*71	3600	61163

* Special design with flange DIN A 140 Ø 140 mm (smaller than normal flange)

Combination pumps	Type KKP
LP 160 bar up to 4,60 cm³/rev	HP 700 bar up to 2,71 cm³/rev

Dimension drawing 2 size 02 up to 700 bar
Weight 2,0 kg

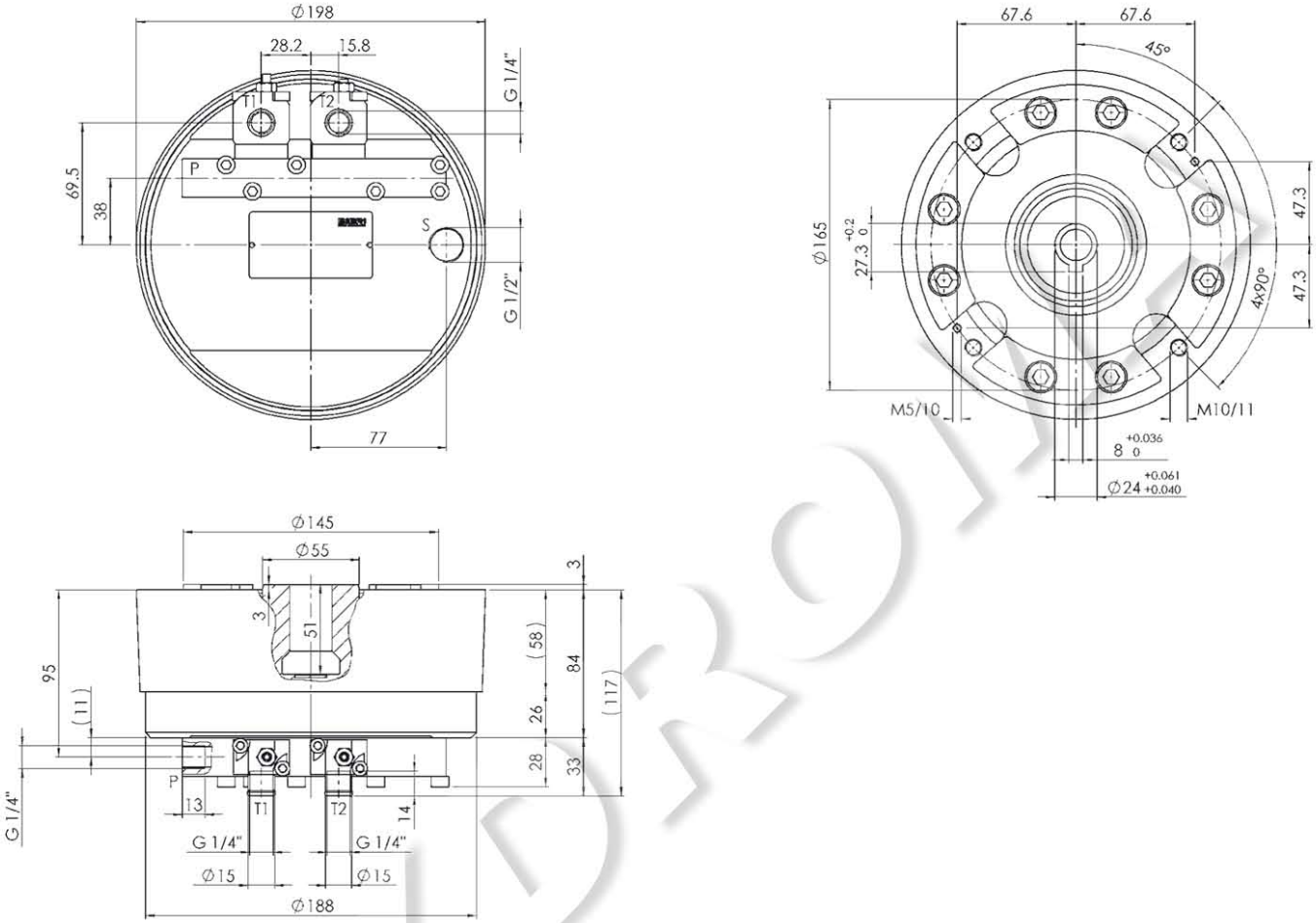


Combination pumps KKP size 02 (dimension drawing 2) up to 700 bar

HIGH PRESSURE Displacement [cm³/rev]	Operating pressure max. [bar]	LOW PRESSURE Displacement [cm³/rev]	Operating pressure max. [bar]	Displacement [LP+HP]	Motor installation dimensions DIN 42677	Speed max. [rpm]	Article no. [NBR]
0.17	700	0.94	60	1.11	71	3600	61908
0.17	700	1.85	60	2.02	71	3600	61907
0.24	700	0.94	120	1.18	71	3600	65545
0.24	700	1.85	60	2.08	71	3600	61906
0.24	700	2.41	60	2.65	71	3600	61371

Combination pumps	Type KKP
LP 160 bar up to 4,60 cm³/rev	HP 700 bar up to 2,71 cm³/rev

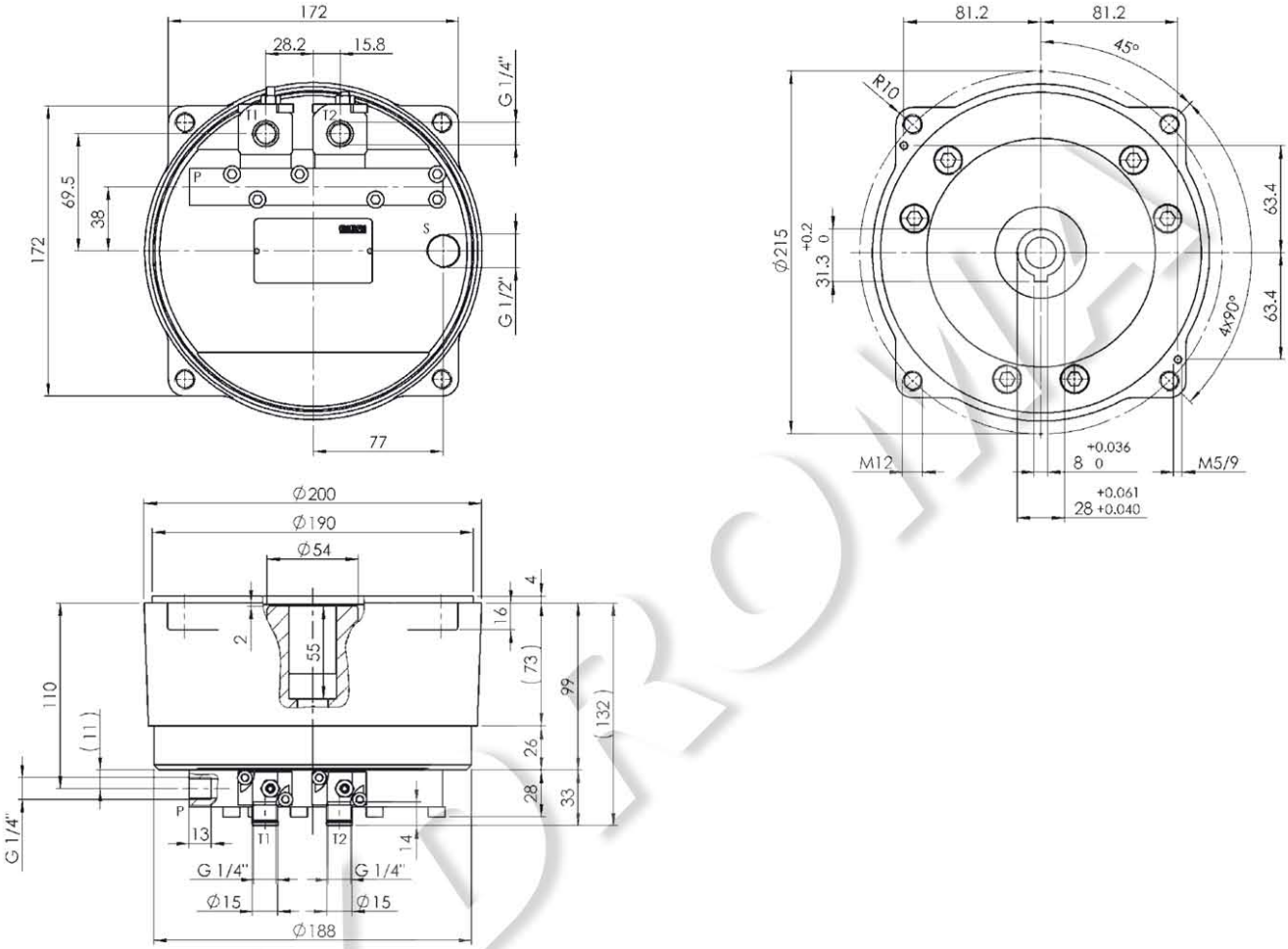
Dimension drawing 3 size 03 up to 700 bar
Weight on request



Combination pumps KKP size 03 (dimension drawing 3) up to 700 bar

HIGH PRESSURE Displacement [cm³/rev]	HIGH PRESSURE Operating pressure max. [bar]	LOW PRESSURE Displacement [cm³/rev]	LOW PRESSURE Operating pressure max. [bar]	Displacement [LP+HP]	Motor installation dimensions DIN 42677	Speed max. [rpm]	Article no. [NBR]
0.47	700	0.47	160	0.94	90	2000	68804
0.47	700	0.68	160	1.15	90	2000	68805
0.47	700	1.21	160	1.68	90	2000	68806
0.47	700	1.53	160	2.00	90	2000	68807
0.47	700	1.89	160	2.36	90	2000	68808
0.47	700	2.72	160	3.19	90	2000	68809
0.68	700	0.68	160	1.36	90	2000	68810
0.68	700	1.21	160	1.88	90	2000	68811
0.68	700	1.53	160	2.21	90	2000	68812
0.68	700	1.89	160	2.56	90	2000	68089

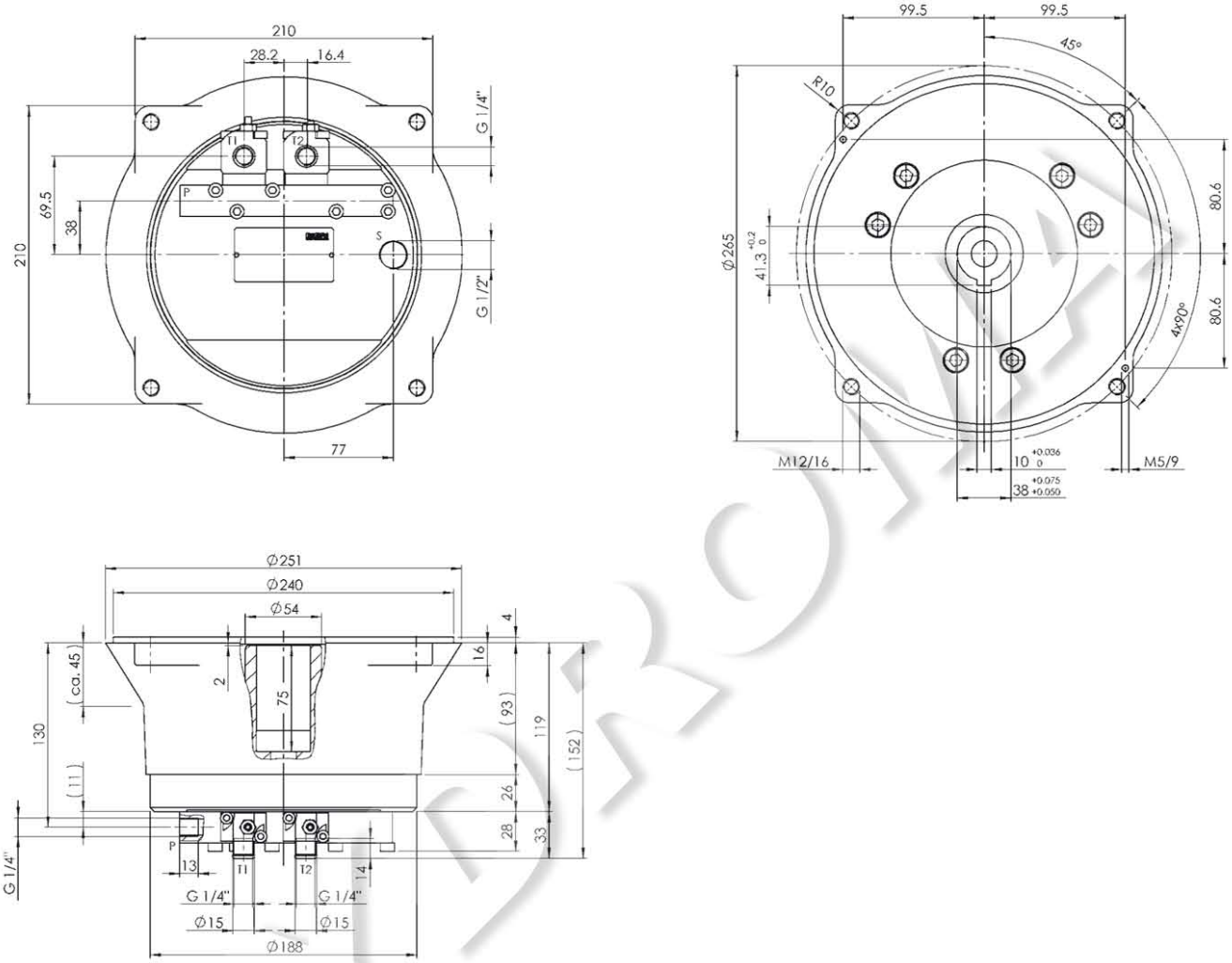
Dimension drawing 4 size 04 up to 700 bar
Weight on request



Combination pumps KKP size 04 (dimension drawing 4) up to 700 bar

HIGH PRESSURE Displacement [cm³/rev]	Operating pressure max. [bar]	LOW PRESSURE Displacement [cm³/rev]	Operating pressure max. [bar]	Displacement [LP+HP]	Motor installation dimensions DIN 42677	Speed max. [rpm]	Article no. [NBR]
0.68	700	2.72	160	3.39	100	2000	68813
1.21	700	1.21	160	2.41	100	2000	68792
1.21	700	1.53	160	2.73	100	2000	68814
1.21	700	1.89	160	3.09	100	2000	68815
1.21	700	2.72	160	3.92	100	2000	68816
1.53	700	1.53	160	3.05	100	2000	68817
1.53	700	1.89	160	3.41	112	2000	68818
1.53	700	2.72	160	4.24	112	2000	68819
1.88	700	1.89	160	3.77	112	2000	68820
1.88	700	2.72	160	4.60	112	2000	68821

Dimension drawing 5 size 05 up to 700 bar
Weight on request



Combination pumps KKP size 05 (dimension drawing 5) up to 700 bar

HIGH PRESSURE		LOW PRESSURE					
Displacement [cm³/rev]	Operating pressure max. [bar]	Displacement [cm³/rev]	Operating pressure max. [bar]	Displacement [LP+HP]	Motor installation dimensions DIN 42677	Speed max. [rpm]	Article no. [NBR]
2.71	625	2.72	160	5.43	132	2000	68793

Combination pumps	Type KKP
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Calculation of driving motor power

$$P = \frac{p \cdot V_g \cdot n \cdot k}{\eta_t \cdot 600 \cdot 10^3}$$

P = Driving power [kW]
p = Operating pressure [bar]
V_g = Displacement [cm^3/rev]
n = Speed [rpm]
η_t = Overall efficiency approx. 0,9

k = Pulsation factor
- with 3 pistons: k approx. 1,05
- with 5 pistons: k approx. 1,0
- with 7 pistons: k approx. 1,0

HYDROMA

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Ordering code: Example

KKP	02	-	0,17	-	700	-	1,11	-	60	-	P	-	A		00

Combination pump

Size

Displacement HP [cm³/rev]

Operating pressure max. HP [bar]

Displacement LP [cm³/rev] (LP + HP)

Operating pressure max. LP [bar]

Seals
P (NBR)
V (FPM)

Design revision
see dimension drawings
(capital letters A-Z;
identical letters equal
same connecting
dimensions)

Part index
Please leave it blank
(small letters a-z;
different letters do
not effect
interchangeability)

Special design
01 ... 99
(00 for standard)

Example with flanged electric motor



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