



AGRICULTURE



CONSTRUCTION



MUNICIPAL



LIFTING



HYDRAULIC COMPONENTS & INTEGRATED SYSTEMS

MOBILE APPLICATIONS

INDEX

Pumps

PISTON PUMPS	4
- for CLOSED LOOP SYSTEM	4
• Variable Displacement	4
- for OPEN LOOP SYSTEM	5
• Fix Displacement	5
• Variable Displacement	5
GEAR PUMPS & GEAR FLOW DIVIDER	7
HAND PUMPS	8
PUMP ACCESSORIES: Splitter Box, Pump Drive and Belt Drive Supports	9

Motors

- AXIAL PISTON MOTORS	10
• Fix Displacement	10
• Dual or Variable Displacement	11
- RADIAL PISTON MOTORS	12
• Fix Displacement	12
• Dual or Variable Displacement	12
GEAR MOTORS	13
ORBIT MOTORS	14
MOTORS ACCESSORIES: Brakes	15

Valves

DIRECTIONAL CONTROL VALVES	16
• Monoblock valves	16
• Sectional valves	16
• Pressure pre-compensated Load-Sensing and Flow Sharing valves	16
COMPACT HYDRAULICS	16
• SAE cavity cartridges valves	16
• Hydraulic Valves (Parts in Body)	17
• Bankable solenoid valves	17
• Diverter valves	17
• Hydraulic Integrated Circuits (HICs)	17

INDEX

Controls & Electronics

Joysticks	18
Pedals	18
Electronic Automotive Control	18
Hydraulic Automotive Control	19

Gearboxes

20

Fan Drive and Heat Exchangers

FAN DRIVE CLOSED LOOP SYSTEM	21
FAN DRIVE OPEN LOOP SYSTEM	21
HEAT EXCHANGERS	21

Rotary Coupling & Actuators

23

Hose & Cable Reels

24

Filters

26


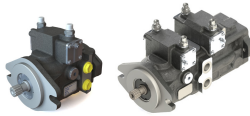
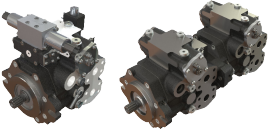


System Integration

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PUMPS

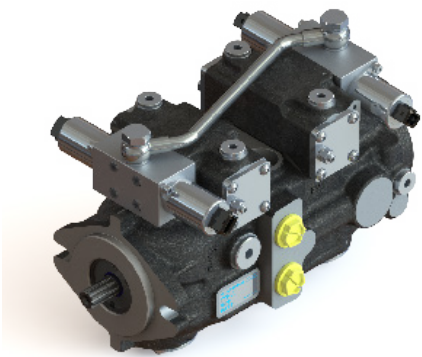
FOR CLOSED LOOP SYSTEM

VARIABLE DISPLACEMENT AXIAL PISTON PUMP

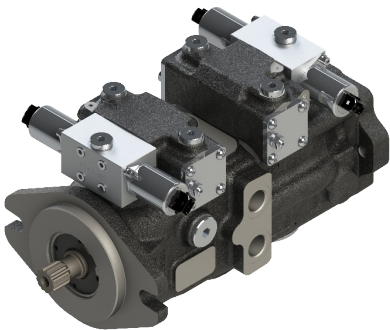
MODEL		DISPLACEMENT (CM ³ /N)	PEAK PRESSURE (MPA)	MAX. SPEED (N/MIN)	CHARACTERISTICS
TPV 1100 (single) TPVT 1300 (compact tandem)		6 ÷ 21	35	3.600	<ul style="list-style-type: none">• Screw by-pass• Lever by-pass + Flushing valve• Perforated screw by-pass ø0.8 for DMS control pumps
TPV 1500 (single & compact tandem)		17 ÷ 21	35	3.600	<ul style="list-style-type: none">• Pre-arranged for connection with external filter• Purge valve with screw by-pass• Filter with/without clogging indicator
TPV 2500 (single & multiple)	 <div>NEW</div>	20 ÷ 38	45	3.600	<ul style="list-style-type: none">• Integrated optionals• High power to weight ratio• Low noise integrated boost pump
TPV 3600 (single & multiple)		26 ÷ 43	42	3.600	<ul style="list-style-type: none">• Lever by-pass• Purge valve• Pressure cut-off valve
TPV 4300 (single & multiple)		32 ÷ 50	32	3.900	<ul style="list-style-type: none">• High rotation speed• Built in pressure relief valves• Suitable for multiple pump assembly
TPV 5000 (single & multiple)		46 ÷ 64	40	3.600	<ul style="list-style-type: none">• High rotation speed• Compact design• Suitable for multiple pump assembly

UNIQUE DESIGN COMPACT TANDEM BACK-TO-BACK

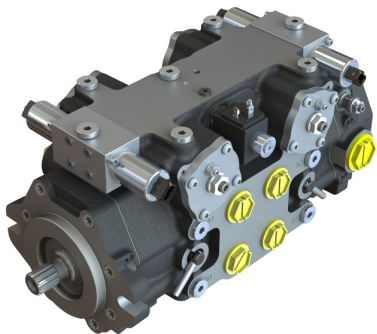
TPV Series available models:



TPV 1300

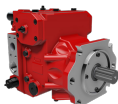


TPVTC 1500



TPVT 2500


NEW

MODEL		DISPLACEMENT (CM ³ /N)	PEAK PRESSURE (MPA)	CONTROL TYPE
K8V Series		71 ÷ 130	45	<ul style="list-style-type: none">• Electric Flow Control• Hydraulic Pilot Flow Control

PUMPS


FOR OPEN LOOP SYSTEM

FIX DISPLACEMENT AXIAL PISTON PUMP


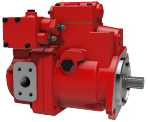
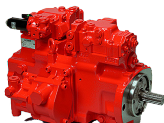


MODEL		DISPLACEMENT (CM ³ /N)	PEAK PRESSURE (MPA)	MAX. SPEED (N/MIN)	CHARACTERISTICS
TPF 60		35 ÷ 50	42	2.800	<ul style="list-style-type: none"> • Low noise • Long service life • High power density

HT HANSA-TMP


BENT AXIS PUMPS

MODEL		DISPLACEMENT (CM ³ /N)	PEAK PRESSURE (MPA)	MAX. SPEED (N/MIN)	CHARACTERISTICS
TPB - TAP 70		12 ÷ 130	40	3.300	<ul style="list-style-type: none"> • Available with ISO, SAE and DIN standard mounting • High efficiency over the entire speed range • Dual displacement pump available for parallel working operation

VARIABLE DISPLACEMENT AXIAL PISTON PUMP

MODEL		DISPLACEMENT (CM ³ /N)	PEAK PRESSURE (MPA)	CONTROL TYPE
K3VLS Series		50 ÷ 150	35	<ul style="list-style-type: none"> • Load Sensing • Pressure Compensating • Electric Flow Control
K3VL Series		28 ÷ 200	35	<ul style="list-style-type: none"> • Load Sensing • Pressure Compensating • Horse Power Control
K7V Series		65 ÷ 140	40	<ul style="list-style-type: none"> • Electric Flow Control • Hydraulic Pilot Flow Control • Horse Power Control
K3V / K5V Series		63 ÷ 280	39,2	<ul style="list-style-type: none"> • Electric Flow Control • Hydraulic Pilot Flow Control • Horse Power Control
K7SP Series		36 x 2	32	<ul style="list-style-type: none"> • Horse Power Control

Kawasaki
Powering your potential

MODEL		DISPLACEMENT (CM ³ /N)	MAX. PRESSURE (MPA)	CHARACTERISTICS
TZH Series		3-16.5	40	<ul style="list-style-type: none"> • Low noise level • 70dB (A) at full cut-off at 350bar • Highly-efficient thanks to energy-saving spherical valve plate • Very long lifetime with high load resistant Bearings • Different pressure compensators available

NACHI

PUMPS

FOR OPEN LOOP SYSTEM

AR SERIES

- Easy to assemble
- Compact and minimum weight design
- Special alloy material, power saving, low noise, long life

MODEL	DISPLACEMENT (CM ³ /N)	MAX. PRESSURE (MPA)	MAX. SPEED (N/MIN)
AR Series	15,8 ÷ 22,2	21	1.800

V SERIES

- New design for changeable angle of swash plate, wide applications
- Special design, low noise level during full pressure time
- Modular control, easy to design system

MODEL	DISPLACEMENT (CM ³ /N)	MAX. PRESSURE (MPA)	MAX. SPEED (N/MIN)
V Series	15,0 ÷ 69,7	25	1.800

PV SERIES

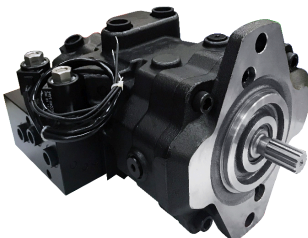
- New design for changeable angle of swash plate, wide applications
- Special design, low noise level during full pressure time
- Modular control, easy to design system
- Low power consuming, low oil temperature rising

MODEL	DISPLACEMENT (CM ³ /N)	MAX. PRESSURE (MPA)	MAX. SPEED (N/MIN)
PV Series	16 ÷ 270	42	2.750

E-PSVD2 SERIES

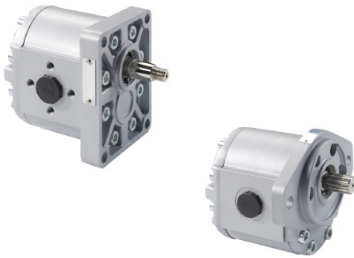
- Light weight, simple structure and reduced number of parts.
- Low noise and low pressure ripple by excellent , Swash Plate and Valve Plate design.
- Short total length ensure the pump fit small engine room.
- No case drain port
- Long life

MODEL	DISPLACEMENT (ML/R)	RATED PRESSURE (MPA)	MAX. TORQUE (N/MIN)
E-PSVD2 Series	17-27	25	140.2



GEAR PUMPS

0-1-2-3 GROUP HYDRAULIC GEAR PUMPS

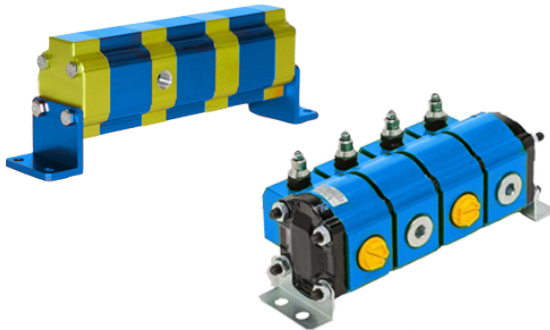


GROUP	DISPLACEMENT (CM ³ /N)	MAX. CONTINUOUS PRESSURE (MPA)	MAX. SPEED (N/MIN)
0	0,16 ÷ 2,28	22	9.000
1	0,89 ÷ 9,78	24	6.000
2	4,00 ÷ 31,50	25	4.000
3	19,30 ÷ 77,20	25	3.500
3	19,30 ÷ 77,20	25	

FEATURES:

- High efficiency
- European standard, German standard, SAE flange, etc.
- Aluminium and cast iron flanges
- Multi-pump
- Long life

0-1-2-3 GROUP - GEAR FLOW DIVIDERS



MODEL	DISPLACEMENT	MAX. PRESSURE	ONE ELEMENT FLOW RATE (L/MIN)	
	CM ³ /N	MPA	MIN.	MAX.
GROUP 0	0,17 ÷ 2,3	21	0,2	10,3
GROUP 1	0,9 ÷ 9,8	22	1	41
GROUP 2	4 ÷ 40	21	4,8	100
GROUP 3	15 ÷ 90	30	18	180

OPTIONAL:

- Max pressure valve
- External drain
- Pressure gauge mounting
- Anti-cavitation valve block
- Solenoid valve

FEATURES:

- Multi-section gear flow divider
- Precision $\pm 1,5\%$ up to $2,5\%$
- Peak pressure 20% higher than maximum continuous operating pressure

HAND PUMPS

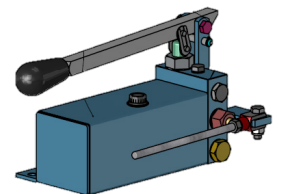
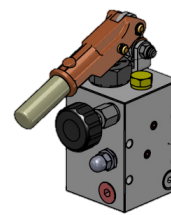
GL SERIES

HAND PUMPS FOR SINGLE ACTING CYLINDER

SINGLE ACTING HAND PUMP
DOUBLE ACTING HAND PUMP
FOOT-OPERATED

OPTIONS:

- Single pump
- With drain
- With tank and drain



HAND PUMPS FOR DOUBLE ACTING CYLINDER

SINGLE ACTING HAND PUMP
DOUBLE ACTING HAND PUMP
FOOT-OPERATED

OPTIONS:

- Single pump
- With tank

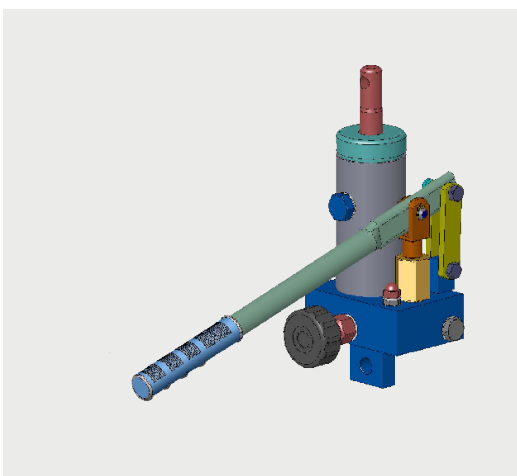


HAND PUMPS WITH BUILD-IN CYLINDER

SINGLE ACTING HAND PUMP
DOUBLE ACTING HAND PUMP

OPTIONS:

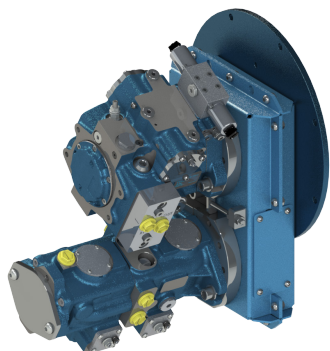
- Single pump
- With tank



We can provide different types of hand pumps according to customer requirements.

PUMP ACCESSORIES

SPLITTER BOX: COMPACT SOLUTION FOR MOBILE APPLICATION



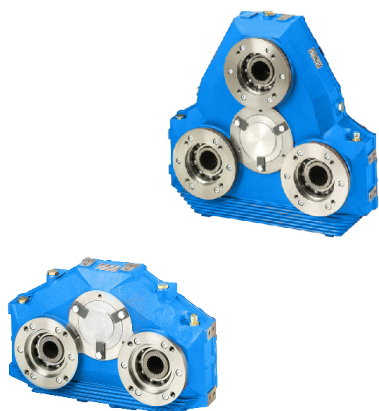
FEATURES:

- Press formed sheet metal housing
- Arrangements for SAE A and SAE B
- Prepared to be applied on heat engine with SAE B interface + adapter bell.
- Compactness

GENERAL INFORMATION	
MAX INPUT SPEED (RPM)	3500
MAX INPUT TORQUE (Nm)	500
MAX INPUT POWER (KW)	180
WORKING TEMPERATURE (°C)	-20 / +100
DIRECT PTO "A" with HEAT ENGINE	
TOTAL TRANSMISSION MAX TORQUE (Nm)	500
TOTAL MAX TORQUE RELATIVE (Nm)	358
MOTION SOCKET "B" connected to the belt	
COUPLE MAX (Nm)	142
POWER MAX (KW)	44.5

HT HANSA-TMP

MULTIPLE PUMP DRIVES



FEATURES:

- Cast-Iron casing
- With housing and coupling connection for diesel engines
- Adaptors for different pumps
- Viton seals on input shaft

MODEL	MAX. INPUT POWER (KW)	MAX. INPUT TORQUE (NM)	MAX. INPUT SPEED (N/MIN)	GEAR RATIO 1: ...
TWO PUMPS DRIVE				
AM 110	180	735 - 450	2.400 - 3.950	0,49 - 1,50
AM 216	205	800 - 500	2.400 - 3.950	0,50 - 1,47
AM 220	355	1.470 - 900	2.400 - 3.950	0,49 - 1,50
AM 230	430	2.080 - 1.270	1.950 - 3.200	0,51 - 1,48
AM 232	656	3.250 - 2.300	1.750 - 2.400	0,49 - 1,00
AM 270	700	4.400 - 2.570	1.800 - 2.600	0,70 - 1,43
700THREE PUMPS DRIVE				
AM 320	205	735 - 500	2.650 - 3.950	0,68 - 1,47
AM 330	355	1.470 - 900	2.400 - 3.950	0,49 - 1,50
AM 345	430	2.080 - 1.270	1.950 - 3.200	0,51 - 1,48
AM 365	670	3.480 - 2.350	1.800 - 2.500	0,69 - 1,45
AM 370	700	4.400 - 2.570	1.800 - 2.600	0,70 - 1,43
FOUR PUMPS DRIVE				
AM 450	640	4.200 - 2.600	1.800 - 2.400	0,50 - 1,00
AM 480	700	4.400 - 3.490	1.700 - 2.000	0,72 - 1,15

BDS - BELT DRIVE SUPPORT



SAE-A



SAE-B

BDS 24	BDS 35	FEATURES
ø24, 9 shaft	ø35, 13 shaft	<ul style="list-style-type: none">• SAE-A BDS 24/9 & 24/13• SAE-B BDS 35/13 & 35/15• High radial load capacity• Long lifetime• Suitable for high-speed engines. Up to 3600 rpm• Maintenance free
ø24, 13 shaft	ø35, 15 shaft	


HT HANSA-TMP

AXIAL PISTON MOTORS



FIXED DISPLACEMENT

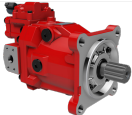
MODEL		DISPLACEMENT (CM ³ /N)	PEAK PRESSURE (MPA)	MAX. SPEED (N/MIN)	CHARACTERISTICS
TMF 600 (medium duty)		22 ÷ 100	42	4.200	<ul style="list-style-type: none"> • Plug-in mounting • Heavy duty bearings for long service life • High permissible output speed
TMF 900 (heavy duty)		72 ÷ 110	45	4.100	<ul style="list-style-type: none"> • Excellent weight/power ratio • Excellent volumetric and mechanical efficiency • Compact design

BENT AXIS MOTOR

MODEL		DISPLACEMENT (CM ³ /N)	PEAK PRESSURE (MPA)	MAX. SPEED (N/MIN)	CHARACTERISTICS
TMV 700		12,6 ÷ 130	40	7.500	<ul style="list-style-type: none"> • Available with ISO, SAE and DIN standard mounting • High speed and high efficiency motors • Smooth operation over the entire speed range

DUAL OR VARIABLE DISPLACEMENT

MODEL		DISPLACEMENT (CM ³ /N)	PEAK PRESSURE (MPA)	MAX. SPEED (N/MIN)	CHARACTERISTICS
TMV 650 (plug-in)		25 ÷ 45	35	3.500	<ul style="list-style-type: none"> • Plug-in mounting • Heavy duty bearings for long service life • High permissible output speed
TMV 550		46 ÷ 64	40	4.000	<ul style="list-style-type: none"> • Excellent weight/power ratio • Excellent volumetric and mechanical efficiency • Compact design

MODEL		DISPLACEMENT (CM ³ /N)	OUTPUT TORQUE (NM)	SPEED (MIN-1)
M7V/M7VC/M7X Series		85 ÷ 212	541 - 1437	4500 - 2900 (at max displacement)

RADIAL PISTON MOTORS

FIXED DISPLACEMENT HIGH TORQUE

GM SERIES



FEATURES:

- High pressure
- High power ratings
- High starting torque
- High speed free-wheeling
- Compact design
- Easy servicing

MODEL	DISPLACEMENT (CM ³ /N)	TORQUE (NM/MPA)	RATED PRESSURE (MPA)	MAX. SPEED (N/MIN)	MAX. POWER (KW)
GM 03	25 ÷ 127	0,04 - 0,22	20	1.300	12
GM 05	39 ÷ 191	0,062 - 0,304	25	1.000	33
GM 1	99 ÷ 314	0,154 - 0,49	25	1.000	48
GM 2	192 ÷ 623	0,3 - 0,973	25	800	90
GM 3	352 ÷ 987	0,549 - 1,54	25	700	80
GM 4	402 ÷ 1316	0,627 - 2,05	25	600	100
GM 5A	807 ÷ 2007	1,26 - 3,13	25	450	120
GM 6	1690 ÷ 3041	2,64 - 4,75	25	400	170
GM 7	1373 ÷ 4663	2,19 - 7,42	25	400	250

DUAL OR VARIABLE DISPLACEMENT HIGH TORQUE

BD SERIES



MODEL	DISPLACEMENT (CM ³ /N)	RATED PRESSURE (MPA)	MAX. PRESSURE (MPA)	CONTINUOUS SPEED (N/MIN)	MAX. POWER (KW)
BD 1	45 ÷ 250	30	40	500 / 1.500	55 / 42
BD 2	90 ÷ 500	25	37,5	700 / 1.500	75 / 65
BD 3	130 ÷ 900	25	40	360 / 1.600	95 / 85
BD 5	250 ÷ 1.900	25	42,5	700 / 1.400	170 / 150
BD 6	420 ÷ 3.000	25	45	300 / 625	240 / 200

FEATURES:

- Dual displacement
- High rotation speed
- Shaft and bearing options
- Innovative design central sliding bearing
- Easy servicing

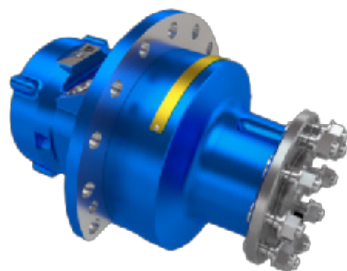
TMR 100



MAX. DISPLACEMENT (CM ³ /N)	RATED PRESSURE (BAR)	PEAK PRESSURE (BAR)	MAX. SPEED (N/MIN)	PEAK POWER (KW)
100	250	350	1.850	60
89			1.900	52
76,3			2.000	44
63,6			2.100	39
50,3			2.300	31
MIN. DISPLACEMENT (CM ³ /N)	RATED PRESSURE (BAR)	PEAK PRESSURE (BAR)	MAX. SPEED (N/MIN)	PEAK POWER (KW)
50,3	250	350	2.300	31
38			2.350	23
31			2.400	19

RADIAL PISTON MOTORS

TMR05



TMR05 motor offers a truly modular multi-lobe cam motor design with a wide variety of standard options to suit multiple drive systems. Cam motor TMR05 offers displacements of 376cc to 5010cc/rev.

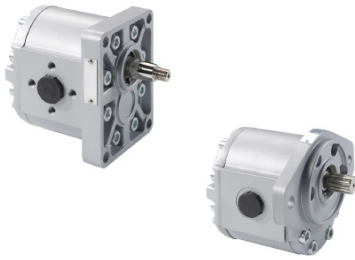
FEATURES:

- 2-speed option
- Parking brake option
- 5 displacements per frame size
- Shaft up vent port option
- Wheel and Shaft output options
- Heavy duty dirt excluder

NOMINAL DISPLACEMENT (CC/REV)	380	430	470	520	570
GEOMETRIC DISPLACEMENT (CC/REV)	376	425	472	519	565
SPECIFIC TORQUE (NM/BAR)	376	425	472	519	565
MAX. PRESSURE (BAR)	5.98	6.76	7.51	8.26	8.99
MAX. CONT. SPEED - 1 DISPLACEMENT (RPM)	450	450	450	450	450
MAX. CONT. SPEED - 2 DISPLACEMENT (RPM)	265	250	240	220	200
MAX. CONT. POWER (KW)	265	250	240	220	200
MIN. VISCOSITY (CST)	15				
MAX. VISCOSITY (CST)	2000				
OPTIMAL VISCOSITY OPERATING RANGE (CST)	35-200				
FLUID TYPE MIN. REQUIREMENTS	HL;HLP to Din 51524				
FLUID CLEANLINESS	NAS 1638 Class 9 ISO code 18/15				
MIN. FLUID OPERATING TEMP. (°C)	-30 Nitrile - 20 Viton				
MAX. FLUID OPERATING TEMP. (°C)	Plus 80				
OPTIMUM TEMPERATURE RANGE (°C)	+40 to +70				
FRAME DIAMETER	225 mm				
APPROX WEIGHT	44 kg				

GEAR MOTORS

0-1-2-3 GROUP HYDRAULIC GEAR MOTORS



GROUP	DISPLACEMENT (CM ³ /N)	MAX. CONTINUOUS PRESSURE (MPA)	MAX. SPEED (N/MIN)
0	0,16 ÷ 2,28	22	9.000
1	0,89 ÷ 9,78	24	6.000
2	4,00 ÷ 31,50	25	4.000
3	19,30 ÷ 77,20	25	3.500
3	19,30 ÷ 77,20	25	

FEATURES:

- High efficiency
- European standard, German standard, SAE flange, etc.
- Aluminium and cast iron flanges
- Multi-pump
- Long life

ORBIT MOTORS

SPOOL VALVE ORBIT MOTORS



MOTOR MODEL	DISPLACEMENT (CM ³ /N)	RATED PRESSURE (MPA)	MAX. PRESSURE (MPA)	TORQUE (NM)
OTMM	8 - 50	10	20	11 - 46
OTMR	51 - 402	14	20	93 - 380
OTS	52 - 402	14	20	93 - 540
OTMH	203 - 472	16	22	425 - 720
OTMP	52 - 393	14	22	97 - 416
OTH	49 - 383	10,5	18	65 - 335
OTMPH	49 - 383	14	20	90 - 350

FEATURES:

- High starting torque
- High efficiency
- Disc valve distributor
- Low noise level
- Easy servicing
- Suitable for a wide variety of hydraulic fluids

DISCK VALVE ORBIT MOTORS



MOTOR MODEL	DISPLACEMENT (CM ³ /N)	RATED PRESSURE (MPA)	MAX. PRESSURE (MPA)	TORQUE (NM)
OTM3Y	80 - 476	20,5	29,5	226 - 728
OTM4	158 - 535	20	28	450 - 1121
OTM5	314 - 969	20	28	873 - 1900
OTM6	759 - 1186	16	21	1690 - 2650

FEATURES:

- Compact size
- High efficiency
- Long lasting motors thanks to the distribution structure
- The shaft seal can bear high pressure and can be used in parallel or in series.

ORBIT MOTORS WITH BRAKE



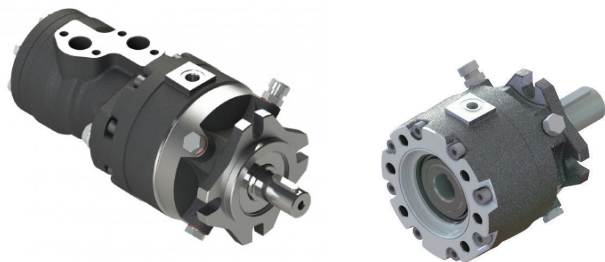
MOTOR MODEL	DISPLACEMENT (CM ³ /N)	RATED PRESSURE (MPA)	MAX. PRESSURE (MPA)	TORQUE (NM)
ZOTMR	80 - 321	9	14	152 - 380
ZOTMR/N	80 - 401	9	14	152 - 380
OTM5	80 - 1186	12,5	16	156 - 2250

FEATURES:

- Compact size
- High efficiency
- Long lasting motors thanks to the distribution structure.
- The shaft seal can bear high pressure and can be used in parallel or in series.

BRAKES

BTM - SPRING LOADED DISC BRAKES



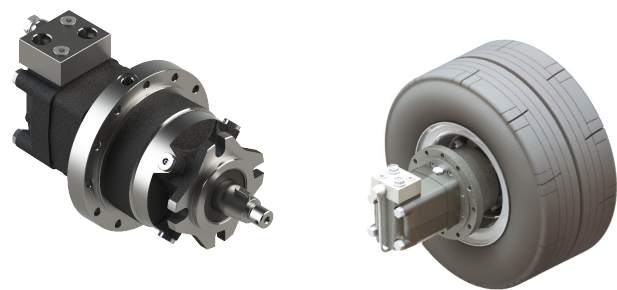
FEATURES:

- Braking torque up to 520 Nm
- Suitable for different input / output shafts and flanges

MODEL	STATIC TORQUE (NM)	MAX. PILOT PRESSURE (MPA)
BTM 03	30 - 40	35
BTM 07	60 - 80	
BTM 11	100 - 120	
BTM 18	170 - 190	
BTM 24	230 - 250	
BTM 32	320 - 330	
BTM 42	400 - 440	
BTM 50	480 - 520	



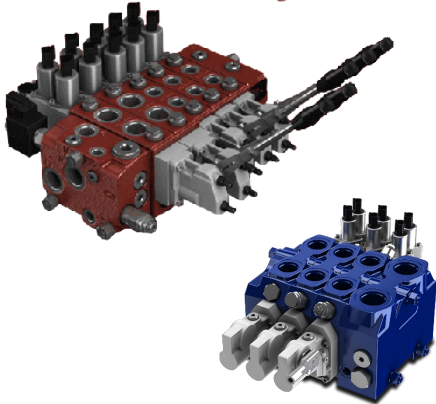
BTM + MSU - WHEEL DRIVE MOTORS WITH SPRING LOADED DISC BRAKES



MODEL	STATIC TORQUE (NM)	TRACTION TORQUE (NM)	MAX. BRAKE PRESSURE (MPA)
BTM 24 / MSU 80	230 - 250	240	30
BTM 32 / MSU 100	320 - 330	305	
BTM 42 / MSU 125	400 - 440	375	
BTM 50 / MSU 160	480 - 520	490	

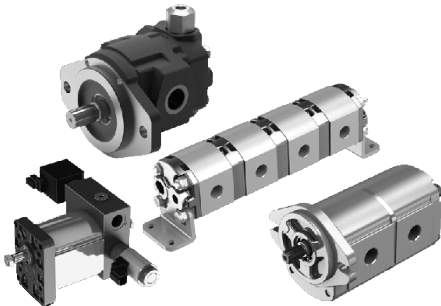


DIRECTIONAL VALVES AND REMOTE CONTROLS, COMPACT HYDRAULICS, PUMPS & MOTORS



DIRECTIONAL VALVES AND REMOTE CONTROLS

- Specifically used in applications such as: agriculture, construction and earthmoving, lifting and transport, industrial vehicles:
- Monoblock valves
- Sectional valves
- Valves for special applications
- Pressure pre-compensated Load-Sensing and Flow Sharing valves
- Hydraulic remote controls and Feed units
- Pneumatic remote controls
- Flexible cable remote controls
- Pressure: 250 ÷ 420 bar



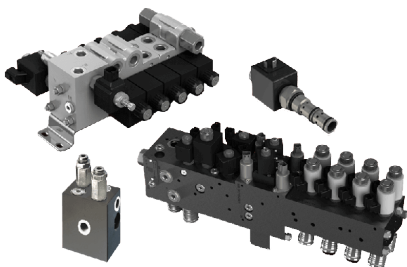
GEAR PUMPS AND MOTORS

Available in stock:

- Aluminium gear pumps
- Cast iron gear pumps
- Special configurations

Wide range of shafts and flanges

Configurations with integrated valves are available



COMPACT HYDRAULICS

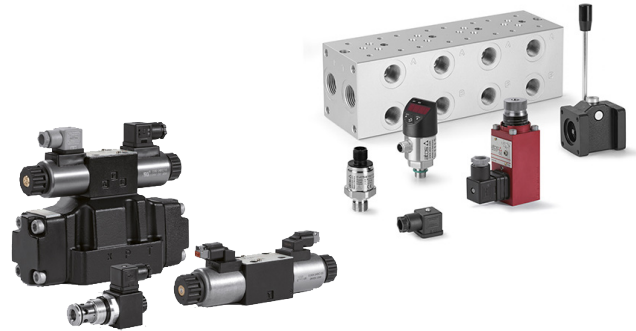
- SAE cavity cartridges valves:
- Hydraulic Valves (Parts in Body):
- Bankable solenoid valves:
- Diverter valves:
- Hydraulic Integrated Circuits (HICs)



ELECTRONIC COMPONENTS & PHC SYSTEMS

- Handles
- Joystick
- Spool position sensors
- Electronic control units
- Software & Tools
- Harnesses

HYDRAULIC VALVES, PROPORTIONAL VALVES AND ELECTRONICS



PROPORTIONAL VALVES

From simple proportional valves to servo-proportional valves with on-board driver:

- **Servoproportional directionals:** for high precision motion control.
- **High performance directionals:** for high dynamic directional and speed control. With or without on-board digital drivers.
- **Directional valves:** With or without on-board digital drivers.
- **Safety proportionals:** integrating safety functions. IEC 61508 & ISO 13849 certified.
- **High performance pressure valves:** Relief, reducing, compensator controls with pressure transducer for best accuracy and repeatability. With or without on-board digital drivers.
- **Pressure valves:** Relief, reducing, compensator controls without transducer. With or without on-board digital drivers.
- **Flow valves:** Pressure compensated speed controls, with or without LVDT transducer. With or without on-board digital drivers.
- **Electronic drivers:** Off-board solutions for DIN-rail cabinet installation in case of harsh environments or plug-in competitive solutions for less demanding applications.
- **Accessories:** Pressure transducers, subplates, hand levers and electric connectors.

ON - OFF VALVES

- **Directional valves:** Solenoid valves with DIN, AMP, Deutsch or lead wire connections. Leak-free, low leakage and/or low power 8/15 W executions. Mechanical, hydraulic or pneumatic operated valves.
- **Pressure valves:** Pressure relief, reducing, sequence and unloading valves.
- **Flow valves:** Pressure compensated valves and throttle valves.
- **Check valves:** Directional leak-free check valves with reverse free flow. Direct or piloted with hydraulic unlock.
- **Safety valves:** Solenoid directional valves and cartridges with inductive sensors to monitor the spool/poppet position, certified to Machine Directive 2006/42/EC. Pressure relief valves certified to PED 2014/68/EU.
- **Modular valves:** Directional, flow, check controls. Pressure relief, reducing, compensator and sequence.
- **ISO cartridges:** Directional, pressure, flow & check controls. High flow ISO cartridges and functional covers for hydraulic blocks installation.
- **Accessories:** Pressure transducers and switches, subplates, hand levers and electric connectors.

ELECTRONICS & CONTROLS

PEDAL & JOYSTICK



FEATURES:

- Single or dual axis heavy duty lever
- Contactless hall sensor technology
- Strong and reliable mechanics
- Digital programmable microprocessor
- Protection up to IP68
- Supply range 11-32 VDC
- EMC/Automotive compliant
- Parameter setup with PC software and serial cable
- Available with a wide range of handles or knobs

MAV 4211 SH

ELECTRONIC CONTROL CARDS



FEATURES:

- Controller for hydrostatic transmissions
- For hydraulic system up to 2 closed loop pumps and 2 variable displacement motors
- Up to 3 digital inputs and 2 analog inputs
- Up to 2 x 2 x 2A PWM outputs

MAV 8 SH

AUTOMOTIVE CONTROL CARDS

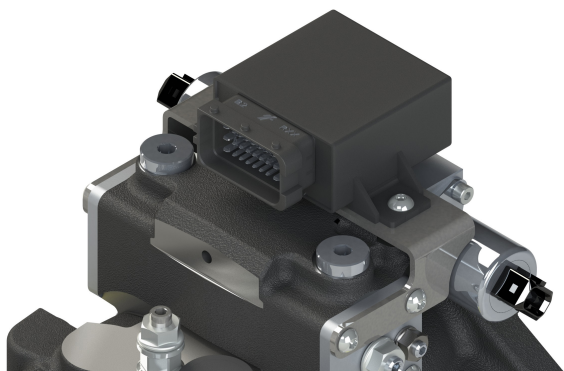


FEATURES:

- Advanced controller for hydrostatic transmissions
- Automotive control
- Tracked vehicle control
- Speed and torque control
- Up to 12 digital inputs and 8 analog inputs
- Up to 8 x 2 x 2A PWM outputs

AUTOMOTIVE SOLUTION

ELECTRONIC AUTOMOTIVE CONTROL



The NEW Electronic Automotive Control is an “autonomous” control for hydrostatic transmissions driven by a heat engine.

It modulates the pump displacement according to the change in revolutions of the thermal engine.

Extremely versatile: with simple and convenient programming, pump dynamics can be adjusted precisely and effectively, making the transmission more efficient and usable.

Improves the inherent safety of the machine itself as it prevents any potentially dangerous operation or maneuvering for the operator and/or any occupants.

Easy and simple to apply: simply carry a cable to supply power to the system (in the entry level version).

Applicable on all closed circuit pumps in our range.

OPTIONS:

To complete the system, the control could be integrated with:

- Monitor DIGITALE / DIGITAL DASHBOARD: Touchscreen monitor that allows viewing, programming and editing of functional parameters
- Pedipulator Control INCHING: Device that progressively cancels the pump displacement.
- SWITCH LEVER: Utilizzata per predisporre l'avanzamento della macchina, che si comanda con acceleratore

TO COMPLETE THE SYSTEM



DIGITAL DASHBOARD

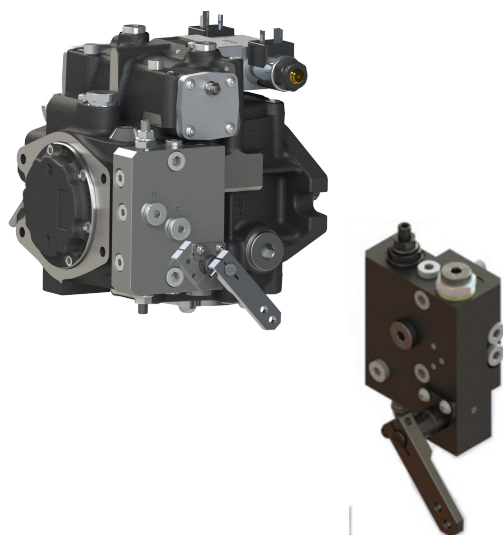


INCHING



SWITCH LEVER

HYDRAULIC AUTOMOTIVE CONTROL



The Automotive hydraulic control system is a device that modulates the pump displacement according to the variation of the revolutions of the heat engine, increasing it as the revolutions increase and decreasing it as they decrease.

With this device, the operator has complete control over the dynamics of the machine by simply acting on the engine throttle.

OPTIONS:

INCHING: Device that progressively cancels the pump displacement. This device is available with mechanical control or hydraulic control

GEARBOXES

GEARBOXES FOR MOBILE APPLICATIONS



AVAILABILITY:

- Slew Drives
- Travel Drives
- Track Drives
- Winch Drives
- Dum Drives
- Planetary Drives
- Truck Mixer Drives
- Drum drives for hybrid concrete mixers
- Electric powertrains for material handling vehicles

RATED TORQUE (Nm)	RATED POWER (kW)	INPUT SPEED (n/min)
1000 - 450000	20 - 450	3000 - 300

300 SERIES – MULTIPURPOSE PLANETARY

FEATURES:

- Modular construction
- Many configurations available in 14 frame sizes with torque capacity up to 450.000 Nm
- Power up to 450 kW
- Reduction ratios ranging from 3.4 to 5.000
- Inputs for electric or hydraulic motors

500 SERIES -TRUCK MIXER DRIVES GEARBOXES

FEATURES:

- Suitable for truck mixers in a range from 1 to 12 cubic meters
- Torque rating from 3000 Nm to 75000 Nm
- 2 or 3-stage planetary reductions
- Main bearing allows for chassis bending during travelling
- High axial and radial load capacity
- Suitable for both low speed and high speed hydraulic motors

700T SERIES – SLEW DRIVE GEARBOXES

FEATURES:

- No. 6 sizes available for output torque up to 60.000 Nm
- Large selection of reduction ratios
- Outputs with integral pinion shafts supported by wide span high load capacity bearings
- Inputs available for electric or hydraulic motors
- Hydraulically released failsafe parking brake, spring operated, available in combination with hydraulic motors
- Dynamic and parking brake available for all-terrain and truck-mounted cranes
- Gears and bearings rated for heavy-duty applications
- Oil bath lubrication
- Available with hydraulic motors complete with pressure relief and anti-cavitation valves

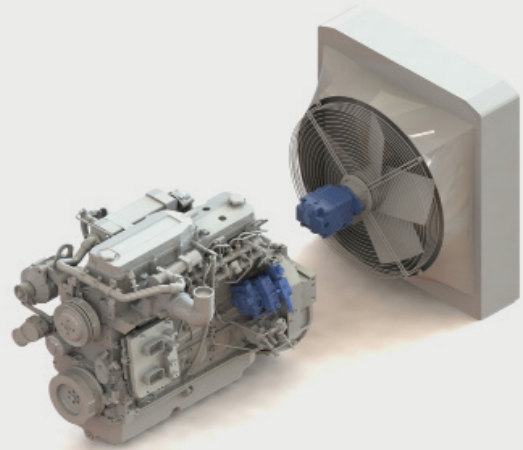
FAN DRIVE

FAN DRIVE SYSTEM IN CLOSED LOOP SYSTEM VARIABLE DISPLACEMENT CLOSED LOOP SYSTEM AXIAL PISTON PUMPS

TPV SERIES

available models 1100, 1500, 3600 and 4300

PUMP MODEL	STANDARD VERSION	SL	RF	TOP (SL+RF)
TPV 1100	•	•	•	•
TPV 1500	•	•	•	•
TPV 3600	•	•	•	•
TPV 4300	•	•	•	•



HT HANSA-TMP

FIXED DISPLACEMENT AXIAL PISTON MOTORS TMF SERIES BENEFIT

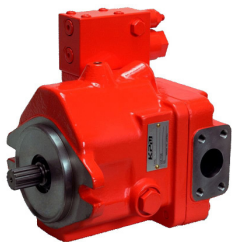
The HANSA-TMP fan drive system can be supplied with different versions:

- STD: Standard
- SL: Speed Limiter
- RF: Reverse Flow
- TOP Version: Speed Limiter + Reverse Flow

- LOWER dimension of the oil tank
- HIGH SPEED rotation
- Complete CONTROL of the propeller working conditions
- NO risk of CAVITATION during the fan stop
- INVERSION OF ROTATION by the pump displacement control

FAN DRIVE SYSTEM IN OPEN LOOP SYSTEM

Kawasaki
Powering your potential

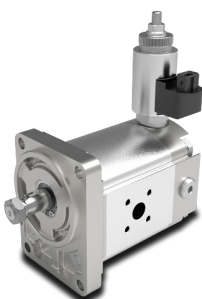


K3VL28 (FAN DRIVE) - MEDIUM PRESSURE, SWASH PLATE, OPEN LOOP AXIAL PISTON PUMPS

The K3VL pump 28 Fan Drive is variable displacement axial piston pump with a proportional electric controller which can be operated either by the Diesel engine control unit or by the machine control unit. In this way, the cooling air flow is optimized with the temperature of the combustion engine reducing the noise and increasing the efficiency of the system.

walvoil
FLUID POWER EMOTION

hydraulic
Control



WAILVOIL FAN DRIVE SYSTEM

These types of motors are widely used in modern Hydraulics due to their performance, long life service and low maintenance costs. An electrohydraulics Fan Drive offers significant advantages if compared with traditional solutions with electric or belt drives.

HEAT EXCHANGERS

AIR-OIL HEAT EXCHANGERS MG AIR SERIES HPA SERIES



EXCHANGER MODEL	RATED FLOW IT/MIN	MAX WORKING PRESSURE (BAR)	CAPACITY KW/°C
Air - Oil	5 - 520	20	0.49 - 1,50
Electric ventilation	Single phase V AC - 50 HZ - Three phase 230 - 400 V AC 50 - 60 Hz		
Hydraulic ventilation	Motor Gr. 1 - 2 - 3		
Standard Equipment	Fixed thermostat - Support feet		
Water - Oil	5 - 800	12	up to 8,30
Standard Equipment	Fixed tube - Extensible tube bundle - Immersed tube bundle		
Materials	Copper brass AISI 304 - Cu Ni 10 - Carbon steel		

FEATURES:

- High efficiency
- Wide range of applications
- Easy maintenance

ROTARY COUPLING

HYDRAULIC, ELECTRIC, ELECTRO-HYDRAULIC ROTARY COUPLINGS

HYDRAULIC ROTARY COUPLINGS



MODEL	PORTS	FLUIDS	MAX. PRESSURE (MPa)	ROTATION SPEED (RPM)	OPERATING TEMPERATURE*
DA SERIES	2 to 8	hydraulic fluid, air	420 bar	0 - 12 rpm	-30 to 80°C
DI SERIES	2 to 18	hydraulic fluid, air	420 bar	0 - 12 rpm	-30 to 80°C
DIF SERIES	6 to 22	hydraulic fluid, air	420 bar	0 - 12 rpm	-30 to 80°C
DPC SERIES	2 to 18	hydraulic fluid, air	420 bar	0 - 12 rpm	-30 to 80°C
DM SERIES	7 to 11	hydraulic fluid, air	420 bar	0 - 12 rpm	-30 to 80°C

*Lower temperature on request

ELECTRICAL SLIP RINGS



MODEL	ROTATION SPEED	OPERATING TEMPERATURE	NUMBER OF CONTACTS	CURRENT LOAD	OPERATING VOLTAGE	PROTECTION RATING (CE163)
CE SERIES	0 - 20 rpm	-20 to 60°C	1 to 80	0.1 mA to 50 A	680 V AC / 220 V DC	IP65
HiPO SERIES	0 - 30 rpm	-40 to 60°C	50	10 mA to 300 A	700 V AC / 700 V DC	IP67



ATEX CERTIFIED PRODUCTS

SWIVEL JOINTS



FLUIDS	MAX. PRESSURE	WORKING PRESSURE	ROTATION SPEED	OPERATING TEMPERATURE
mineral oil	450 bar	up to 450 bar	0 - 15 rpm	-50 to 60°C

ELECTRICAL SLIP RING - ATEX



FLUIDS	MAX. PRESSURE	WORKING PRESSURE	ROTATION SPEED	OPERATING TEMPERATURE
mineral oil	450 bar	up to 450 bar	0 - 15 rpm	-50 to 60°C

ROTARY ACTUATORS

HYDRAULIC ROTARY ACTUATORS



DA-H SERIES

- Rotating shaft
- Working pressure up to 25 MPa
- Torque up to 250.000 Nm (15 sizes)
- Standard angle 90°, 180°, 270°, 360°
- Special angle up to 1500°

Preferred applications:

Industry (construction machinery, machine tools etc.)



DA-H-AL SERIES

- Rotating shaft
- Working pressure up to 21 MPa
- Torque up to 16.000 Nm
- Standard angle 90°, 180°, 270°, 360°
- Special angle up to 1500°
- Reduced weight (aluminium)

Preferred applications:

Aerial platforms



M-DA-H SERIES

- Rotating flange
- Working pressure up to 25 MPa
- Torque up to 4.800 Nm (11 sizes)
- Standard angle 180°, 360°

Preferred applications:

Working platform, construction machinery, automotive technology

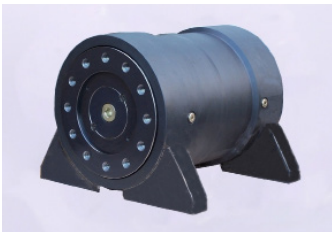


M-DA-H-F SERIES

- Rotating flange or shaft, with foot
- Working pressure up to 21 MPa
- Torque up to 50.000 Nm
- Standard angle 180°, 360°

Preferred applications:

Working platform, Garbage trucks
Automotive technology, etc.



M-DA-H-F3 SERIES

- Rotating flange, special mounting
- Working pressure up to 21 MPa
- Torque up to 5.000 Nm
- Standard angle 180°, 360°

Preferred applications:

Working platform



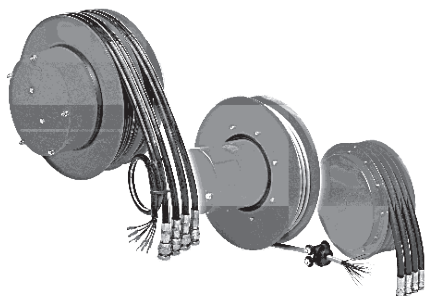
BV SERIES

- Rotating flange, with foot
- Working pressure up to 10 MPa
- Torque up to 100.000 Nm (9 sizes)
- Standard angle 100°, 140°

Preferred applications:

Bucket and ancillary equipment for construction machinery

HOSE AND CABLE REELS



FEATURES:

- High technical performances
- Large applications range
- Pressure up to 30 MPa
- Double sealing system

HOSE REELS

MODEL	NUMBER OF HOSE PORT	HOSE TYPE	NOMINAL DIAMETER MM.	PORT DIMENSIONS BSP	MAX. PRESSURE MPA
S1	1	1 x single hose	295 - 720	5/16" - 1/2" - 5/8" - 3/4" - 1"	35
A1 25....800 - 1600		1 x twin hose	810 - 1600	1/2" - 5/8" - 3/4" - 1"	35
AG....200 - 340 Compact			200 - 340	3/16" - 1/4" - 5/16 "- 3/8"	30
AG....296 - 520	296 - 520		1/4" - 5/16" - 3/8" - 1/2"	30	
AG....570 - 1000	570 - 1000		1/4" - 5/16" - 3/8" - 1/2"	30	
AG 19	420 - 920		1/2" - 5/8" - 3/4"	35	
AG 25	810 - 1400		3/8"-1/2" - 5/8" - 3/4"	35	
AG LS	2		400 - 820	1/4" - 5/16" - 3/8"	30
RT 1 - RT 2		Rescue Tools Hose Reel	420 - 520	1/4"	37/70
A2.19		2 x single hose	420 - 820	1/2" - 5/8" - 3/4"	35
A2.25			620 - 1400	1/2" - 5/8" - 3/4" - 1"	35
A3		3	1 x 3 port hose	295 - 920	1/4" - 5/16" - 3/8" - 1/2"
A3.19	3 x single hose		420 - 820	1/2" - 5/8" - 3/4"	30
A4	4	2 x twin hose	230 - 820	1/4" - 5/16" - 3/8"	30
A4.12			295 - 820	1/2"	30
M4			370 - 720	1/4" - 5/16" - 3/8" - 1/2"	30
A4.19		4 x single hose	420 - 820	1/2" - 5/8" - 3/4"	35
A 5	5	Multi hose	295 - 720	1/4" - 5/16" - 3/8"	30
A 6	6		295 - 720	1/4" - 5/16" - 3/8"	30
AG/E	2	2 hoses + cable	275 - 700	3/8" - 1/2"	30
A3/E	3	3 hoses + cable	295 - 470	3/8"	30
A4/E	4	4 hoses + cable	295 - 478	3/8"	30
A5/E	5	5 hoses + cable	295 - 478	3/8"	30
9000	1	Air, Oil, Diesel, Water	440	1/4" - 5/16" - 3/8" - 1/2"	40
9100	1	Air, Oil, Diesel, Water	450	1/4" - 5/16" - 3/8" - 1/2"	40/25/8
800	1	Compressed Air	-	-	1,0 - 1,5
9200	1	Welding Gas	-	-	2

CABLE REELS

MODEL	NOMINAL DIAMETER MM.	CONDUCTOR SECTION	NUMBER OF CONTACTS	CURRENT
CR 025	120	0,25 mm ²	2 - 3	75 V - 4 A
CR 10	235 - 650	1 mm ²	2 - 36	75 V - 4 A
CR 15	235 - 570	1,5 mm ²	2 - 36	75 V - 6 A
CR 25	295 - 820	2,5 mm ²	3 - 12	75 V - 15 A
6000	370 - 720	Up to 2,5 mm ²	3 - 24	400 V - 150 A
700	-	Manual operation	5	12 - 24 230 - 380

FILTERS

ECOLOGICAL HIGH-PRESSURE FILTERS

The HT-EHPF series of ecological high-pressure filters are designed to provide high-quality filtration for hydraulic systems.

They provide new possibilities for cost reduction, improving productivity and profitability.

Characteristics
Max. 700 l/min – 450 bar



SPIN ON FILTER

Spin-on filters for hydraulic systems are suitable for both return and suction lines in mobile applications using mineral oil.

Filtering capacity 10 µm absolute

Pressure:
35 bar

Characteristics

Spin-on filters can be used for:

- Suction filters
- On the return circuit, for in-line or tank cover mounting
- In-line for low and medium pressure applications



SPIN ON FILTER

Combined return/suction filters for hydraulic systems are suitable for both return and suction lines in mobile applications using mineral oil.

Pressure:
35 bar

Characteristics

They can be used for:

- Suction filters
- On the return circuit, for in-line or tank cover mounting
- In-line for low and medium pressure applications



SYSTEM INTEGRATION

CUSTOMISE MOBILE HYDRAULIC SYSTEM

HANSA-TMP AS A SYSTEM INTEGRATOR.

In addition to being a manufacturer of axial piston pumps for closed circuit, the company sells products of the most famous brands of international hydraulics. In this way, it becomes the only reference partner to rely on in the construction of the entire hydraulic circuit. HANSA-TMP's Application Engineer team studies the most suitable hydrostatic transmission for the customer's application by combining the product ranges it

produces and distributes, making it competitive and highly performing.

The company supports the machinery manufacturers in co-designing the complete solution, giving them a competitive advantage in terms of efficiency, silence, compactness, robustness and emission reduction.

COMPACT ALL-TERRAIN MACHINE:

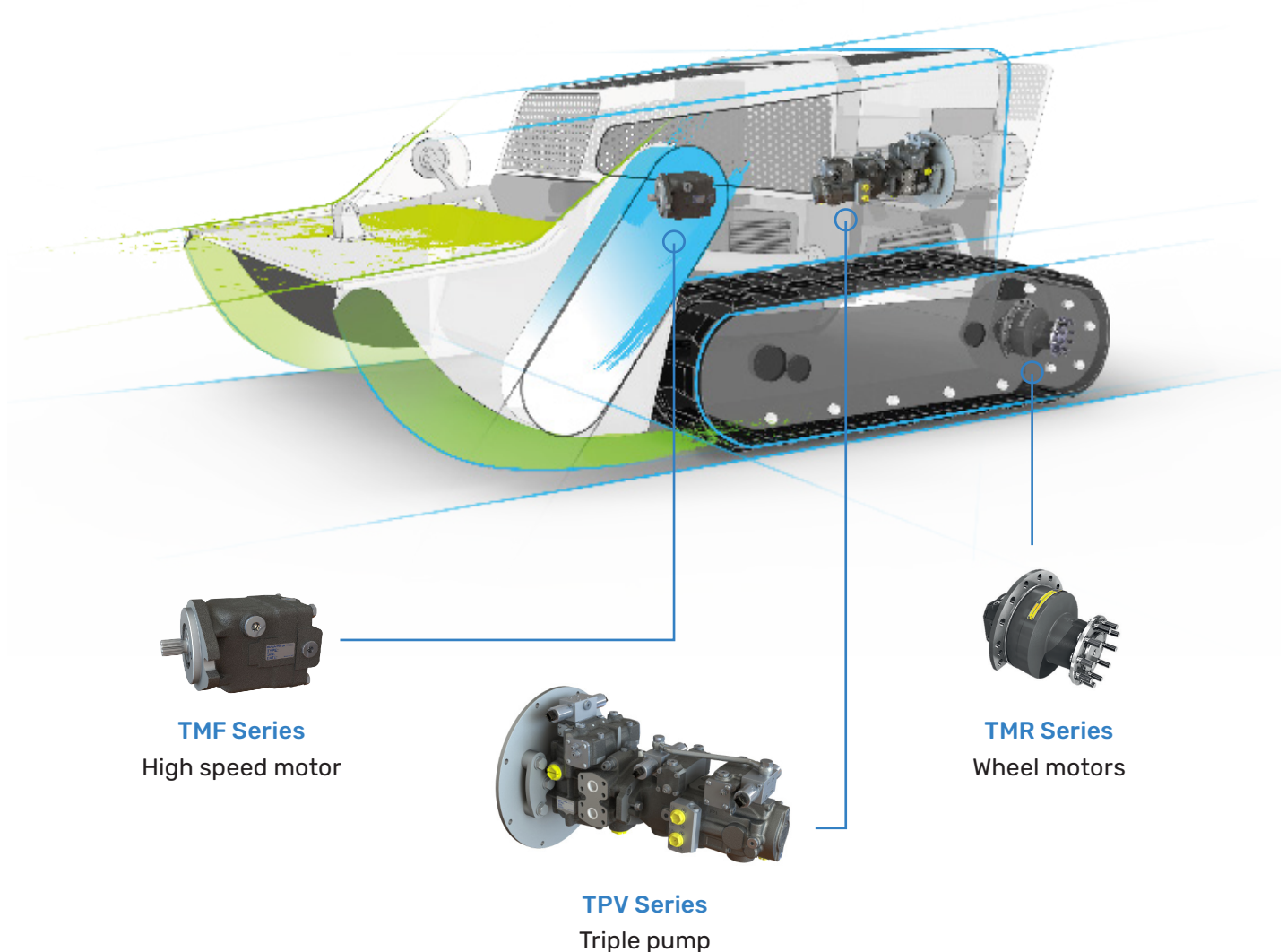
- High performance within a very limited area
- Space saving in length, increasing efficiency and reducing the volume inside the engine compartment
- Extra space ensuring added value for OEMs

Components used in the realization of the system:

TPV Series - Triple variable displacement closed loop axial piston tandem pump for hydrostatic transmission

TMR Series - Wheel motors with brake

TMF Series - High speed fixed displacement axial piston motor for tool.



CUSTOMISE MOBILE HYDRAULIC SYSTEM

MINI FORWARDER:

The transition from mechanical transmission to Hansa-TMP hydrostatic transmission has made it possible to reduce the curb weight and the dimensions of the machine down to values of 2,300kg and 5.37m length.

- More efficiency and safer operation
- Achieving of sustainable production models

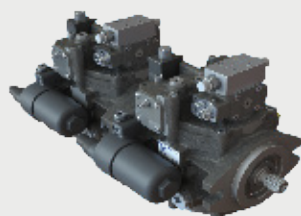
Components used in the realization of the system:

TPVT 3600 - Tandem closed loop axial piston pump, which offers the best power to weight ratio on account of its innovative design and production technologies. Thanks to the high-efficiency transmission, it is able to minimise the amount of energy required for its use, ensuring considerable energy benefits.

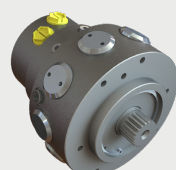
TMR 100 Series - Radial piston motors characterised by high speed, high volumetric efficiency and high starting torque.*

Electronic control with single pedal, which controls all the system.

*Hansa-TMP can supply these systems in complete groups, together with gearboxes and negative brakes.



TPVT Series
Tandem pump



TMR Series
Radial motors



Controls
Pedals

CUSTOMISE MOBILE HYDRAULIC SYSTEM

ROAD ROLLER SOLUTION:

- Lightweight roller compactors, easy to use, transport and maintain.
- The pump-motor combination allows greater productivity in different open spaces, more traction and better grip.
- Vibration is automatically disabled in "load" or "transport" mode, increasing operator comfort.

Components used in the realization of the system:

- **TPV 1100 Series** - Closed loop axial piston pump, 6-21 cm³/rev, up to 350 bar.
- **Orbital motor** - Meets EU Stage V emission standards and delivers quicker compaction.
- **Hydraulic joystick** - Regulates flow rates with lower operating forces than the entire standard range and switches easily between drive modes.



Piston pump



Joystick



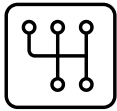
Orbital Motor

CUSTOMISE MOBILE HYDRAULIC SYSTEM

Through its team of specialists HANSA-TMP supports the machinery manufacturers in co-designing the complete solution, giving them a competitive advantage

in terms of efficiency, silence, compactness, robustness and emission reduction.

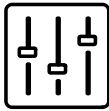
DISCOVER FURTHER SOLUTIONS FOR MOBILE APPLICATIONS:



Hydrostatic transmission
design and supply of the complete traction system



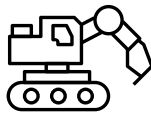
Machine monitoring and control



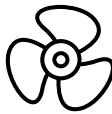
Control electronics and automotive



Steer-by-wire and man-machine interface



Dual-path vehicles
(crawler vehicles or skid steers)



Fan drive system



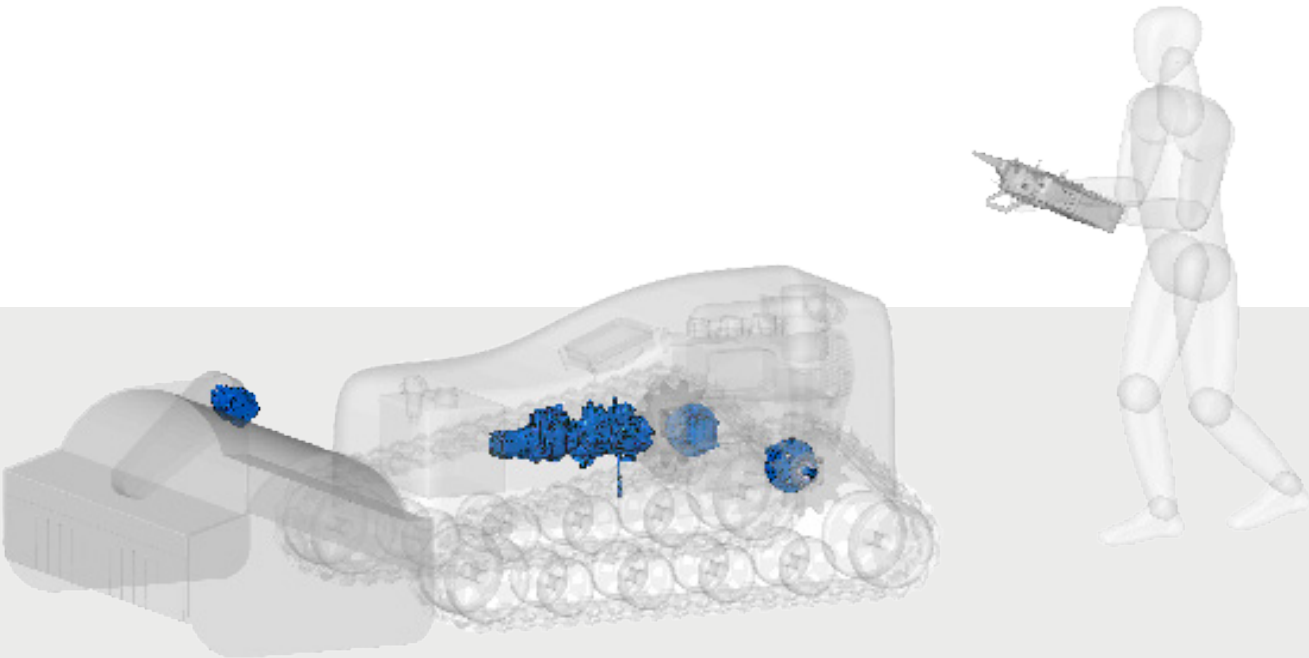
Load sensing control



Hydro-electric vehicles



Manually operated safety systems



APPLICATIONS

APPLICATIONS & SECTORS

AGRICULTURE & FORESTRY



Fruit Harvesters



Multipurpose Tractors



Forestry Forwarders



Harvesting Machines

ENVIRONMENT & GARDENING



Mowers (self propelled)



Mowers (remote controlled)



Sweepers



Amphibious Vehicles

CONSTRUCTION & HANDLING



Mini Loaders



Road & Soil Compactors



Mini Dumpers



Skid Steer Loaders

LIFTING



Manlifts



Forklifts



Telehandlers



Aerial platforms

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- China
- India

Contact us to find our Sales Manager closest to you:
Tel +39 059415711
hansatmp@hansatmp.it



QR-Code
HANSA-TMP
Company Web-Site

WHERE WE ARE

Being close to our customers is one of our main values.

We are based in Italy, Germany, China, and India with our own sales offices.
Moreover, we have a network of 21 distributors worldwide.

