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<td>S ... - SM ..., BTM, BTM + MSU</td>
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<tr>
<td>Construction &amp; Handling</td>
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THE COMPANY

HANSA-TMP Group is an international Group established in Modena, Italy in 1984. With seven branches all around the world, the company is the perfect partner for all projects requiring fluid technology in connection with hydraulics, electronics and engineering.

The group has three divisions:

HANSA-TMP Manufacturing - design and manufacture of innovative hydraulic components: hydrostatic transmissions, controls and wheel drive units. Through HANSA-TMP Mechatronic Research Center this division is continuously innovating the product line meeting the highest quality and sustainability standards of the OEMs.

HANSA-TMP Engineering - complex and customized mechatronic systems integration for the mobile and industrial applications. This division is specialized in integrating hydraulics, power transmission, electric drives, control electronics and software.

HANSA-TMP Official Distributor - The company is the exclusive distributor on the Italian market for international high quality brands in the hydraulic field: Kawasaki Precision Machinery, Wandfluh, Yeoshe, Dynex, Rickmeier. The company is also an authorized repair and warranty provider for the distributed brands.

The HANSA-TMP brand has been recognised worldwide for more than 30 years for the high quality of its products and services as well as for the superb and dedicated customer care. The company is certified for the quality of the products and processes as well as for the operations’ sustainability by the ISO 9001:2015 and ISO 14001:2015.
WORLDWIDE PRESENCE

- HANSA-TMP Facilities
- HANSA-TMP Distribution Network

HANSA-TMP EXPERTISE

Research & Development
Operations Management
100% Production Tested

Total Quality Management
Smart Supply Chain
Customer Field Support
### TPV 1000
Variable Displacement Closed Loop System Axial Piston Pumps

**Features:**
- High rotation speed
- Compact design
- Suitable for multiple pump assembly

**Accessories:**
- By-pass valve
- Control lever with or without return spring
- Hydraulic servo-control
- Electro-proportional servo-control
- Purge valve
- SAE-A or SAE-B (only servo) mounting
- Screw by-pass

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<tbody>
<tr>
<td>6 [0.37], 8 [0.49], 9 [0.55], 11 [0.67], 12 [0.73], 13 [0.79]</td>
<td>21 [3,045]</td>
<td>30 [4,350]</td>
<td>3.600 [3,600]</td>
<td>8.8 [19]</td>
</tr>
<tr>
<td>15 [0.9], 17 [1.0]</td>
<td>21 [3,045]</td>
<td>30 [4,350]</td>
<td>3.600 [3,600]</td>
<td>8.8 [19]</td>
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</table>

### TPV 1200 BTB
Variable Displacement Closed Loop System Axial Piston Compact Tandem Pumps

**Features:**
- Low noise level
- High rotation speed
- Compact design and reduced length
- Suitable for multiple pump assembly

**Accessories:**
- Auxiliary gear pumps group 1-2
- Control lever with or without return spring
- Hydraulic servo-control
- Electro-proportional servo-control
- Man on board
- Purge valve
- SAE-A or SAE-B (only servo) mounting
- Screw by-pass

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<tr>
<td>6 [0.37], 8 [0.49], 9 [0.55], 11 [0.67], 12 [0.73], 13 [0.79]</td>
<td>21 [3,045]</td>
<td>30 [4,350]</td>
<td>3.600 [3,600]</td>
<td>19 [42]</td>
</tr>
<tr>
<td>15 [0.9], 17 [1.0]</td>
<td>21 [3,045]</td>
<td>30 [4,350]</td>
<td>3.600 [3,600]</td>
<td>19 [42]</td>
</tr>
</tbody>
</table>
TPV - TPVTC 1500
Variable Displacement Closed Loop System Axial Piston Pumps

Features:
- Low noise level
- High rotation speed
- High power density
- Compact design
- Suitable for multiple pump assembly
- Built-in pressure relief valves

Accessories:
- Auxiliary gear pumps group 2 SAE-A
- Hydraulic servo-control
- Hydraulic servo-control with feed back
- Electro-proportional servo-control
- Electro-proportional servo-control with feed back
- Manual lever servo-control with feed back
- Man on board
- Purge valve
- SAE-B mounting
- Screw by-pass
- Sensors and transducers available on request

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<tbody>
<tr>
<td>17 [1.0], 18 [1.1], 19 [1.2], 21 [1.3]</td>
<td>35 [5,075]</td>
<td>40 [5,800]</td>
<td>3.600 [3,600]</td>
<td>14 [31]</td>
</tr>
</tbody>
</table>

TPV 3200
Variable Displacement Closed Loop System Axial Piston Pumps

Features:
- High rotation speed
- Compact design
- Suitable for multiple pump assembly

Accessories:
- Manual displacement servo-control
- Hydraulic proportional servo-control
- Electro-proportional servo-control
- Automotive
- Special versions
- SAE-B mounting

|-------------------------------|--------------------------|-------------------------|-----------------------------|-----------------------------|
TPV - TPVT 3600
Variable Displacement Closed Loop System Axial Piston Pumps

Features:
- Low noise level
- High rotation speed
- High power density
- Compact design
- Suitable for multiple pump assembly
- Built-in pressure relief valves

Accessories:
- Auxiliary gear pumps group 2 SAE-A and group 3 SAE-B
- Hydraulic servo-control
- Hydraulic servo-control with feed back
- Electro-proportional servo-control
- Electro-proportional servo-control with feed back
- Manual lever servo-control with feed back
- Man on board
- Purge valve
- SAE-B mounting
- Screw by-pass
- Pressure cut-off
- Sensors and transducers available on request

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</thead>
<tbody>
<tr>
<td>26 [1.6], 28 [1.7], 30 [1.8], 31 [1.9], 32 [2.0], 34 [2.1], 36 [2.2], 38 [2.3]</td>
<td>35 [5,075]</td>
<td>45 [6,525]</td>
<td>3.600 [3,600]</td>
<td>28 [62]</td>
</tr>
</tbody>
</table>

TPV 4300
Variable Displacement Closed Loop System Axial Piston Pumps

Features:
- High rotation speed
- Compact design
- Suitable for multiple pump assembly
- Built-in pressure relief valves

Accessories:
- Hydraulic servo-control
- Electro-proportional servo-control
- SAE-B mounting
- Man on board
- Screw by-pass
- Special versions

|-------------------------------|--------------------------|-------------------------|-----------------------------|-----------------------------|
**TPV 5000**
Variable Displacement Closed Loop System Axial Piston Pumps

|---------------------------------|--------------------------|--------------------------|----------------------------|-----------------------------|

**TPV 9000**
Variable Displacement Closed Loop System Axial Piston Pumps

<table>
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<tr>
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</thead>
<tbody>
<tr>
<td>72 [4.4]</td>
<td></td>
<td></td>
<td>4.100 [4,100]</td>
<td>68 [150]</td>
</tr>
<tr>
<td>90 [5.5]</td>
<td></td>
<td></td>
<td>4.000 [4,000]</td>
<td></td>
</tr>
<tr>
<td>110 [6.7]</td>
<td></td>
<td></td>
<td>3.800 [3,800]</td>
<td></td>
</tr>
</tbody>
</table>
### TPF 60
Fixed Displacement Open Loop System Axial Piston Pumps

**Features:**
- Low noise
- Low pulsation
- Long service life
- High power density

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</thead>
<tbody>
<tr>
<td>50 [3.0]</td>
<td></td>
<td>41 [5,945]</td>
<td>2,500 [2,500]</td>
<td></td>
</tr>
</tbody>
</table>

### TPB - TAP 70
Fixed Displacement Bent Axis Axial Piston Pumps

**Features:**
- Available with ISO, SAE and DIN standard mounting
- High efficiency over the entire speed range
- Long life with high performances
- Dual displacement pump available for parallel working operation

<table>
<thead>
<tr>
<th>Displacement cm³/n. [in³/rev.]</th>
<th>Rated pressure MPa [psi]</th>
<th>Peak pressure MPa [psi]</th>
<th>Maximum speed n/min. [rpm]</th>
<th>Weight kg [lb]</th>
</tr>
</thead>
<tbody>
<tr>
<td>12,6 [0.8]</td>
<td></td>
<td></td>
<td>3,300 [3,300]</td>
<td>7,5 [17]</td>
</tr>
<tr>
<td>17,0 [1.1]</td>
<td></td>
<td></td>
<td>3,200 [3,200]</td>
<td>8,5 [19]</td>
</tr>
<tr>
<td>25,4 [1.5]</td>
<td></td>
<td></td>
<td>2,550 [2,550]</td>
<td>15,5 [34]</td>
</tr>
<tr>
<td>34,2 [2.1]</td>
<td></td>
<td></td>
<td>2,250 [2,250]</td>
<td></td>
</tr>
<tr>
<td>56,0 [3.4]</td>
<td></td>
<td></td>
<td>2,100 [2,100]</td>
<td></td>
</tr>
<tr>
<td>63,6 [3.9]</td>
<td></td>
<td></td>
<td>2,050 [2,050]</td>
<td></td>
</tr>
<tr>
<td>83,6 [5.1], 90,7 [5.5], 108,0 [6.6]</td>
<td></td>
<td></td>
<td>1,700 [1,700]</td>
<td>27,0 [60]</td>
</tr>
<tr>
<td>130,0 [7.9]</td>
<td></td>
<td></td>
<td>1,600 [1,600]</td>
<td>29,5 [65]</td>
</tr>
</tbody>
</table>

The table values can change in function of the configuration.
### TMF 600
**Fixed Displacement Axial Piston Motors**

<table>
<thead>
<tr>
<th>Displacement cm³/n. [in³/rev.]</th>
<th>Rated pressure MPa [psi]</th>
<th>Peak pressure MPa [psi]</th>
<th>Maximum speed n/min. [rpm]</th>
<th>Weight kg [lb]</th>
</tr>
</thead>
<tbody>
<tr>
<td>63 [3.8], 71 [4.3], 75 [4.6], 92 [5.6]</td>
<td></td>
<td>42 [6,090]</td>
<td>3.600 [3,600]</td>
<td>11.3 [25]</td>
</tr>
</tbody>
</table>

**Features:**
- High starting torque
- Smooth operation
- Long service life
- High power density
- Built-in valves available

### TMF 900
**Fixed Displacement Axial Piston Motors**

<table>
<thead>
<tr>
<th>Displacement cm³/n. [in³/rev.]</th>
<th>Rated pressure MPa [psi]</th>
<th>Peak pressure MPa [psi]</th>
<th>Maximum speed n/min. [rpm]</th>
<th>Weight kg [lb]</th>
</tr>
</thead>
<tbody>
<tr>
<td>90 [5.5]</td>
<td></td>
<td></td>
<td>4.000 [4,000]</td>
<td>34 [75]</td>
</tr>
<tr>
<td>110 [6.7]</td>
<td></td>
<td>3.800 [3,800]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Features:**
- High pressure
- High rotation speed
- Excellent volumetric and mechanical efficiency
- Compact design

### TMV 550
**Two Speed Axial Piston Motors**

<table>
<thead>
<tr>
<th>Displacement cm³/n. [in³/rev.]</th>
<th>Rated pressure MPa [psi]</th>
<th>Peak pressure MPa [psi]</th>
<th>Maximum speed n/min. [rpm]</th>
<th>Weight kg [lb]</th>
</tr>
</thead>
</table>

**Features:**
- Excellent weight/power ratio
- High rotation speed
- Excellent volumetric and mechanical efficiency
- Compact design

www.hansatmp.com
TMV 650
Two Speed Axial Piston Plug-in Motors

Features:
- Swashplate design for hydrostatic transmissions
- Plug-in mounting
- Heavy duty bearings for long service life
- High permissible output speed

<table>
<thead>
<tr>
<th>Displacement cm³/n. [in³/rev.]</th>
<th>Rated pressure MPa [psi]</th>
<th>Peak pressure MPa [psi]</th>
<th>Maximum speed n/min. [rpm]</th>
<th>Weight kg [lb]</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 [1.5], 30 [1.8], 35 [2.1], 38 [2.3], 45 [2.7]</td>
<td>30 [4350]</td>
<td>35 [5075]</td>
<td>3.500</td>
<td>15.6 [34]</td>
</tr>
</tbody>
</table>

TMB 700
Fixed Displacement Bent Axis Piston Motors

Features:
- Available with ISO, SAE and DIN standard mounting
- High speed and high efficiency motors
- Smooth operation over the entire speed range
- Long life with high performances

<table>
<thead>
<tr>
<th>Displacement cm³/n. [in³/rev.]</th>
<th>Rated pressure MPa [psi]</th>
<th>Peak pressure MPa [psi]</th>
<th>Maximum speed n/min. [rpm]</th>
<th>Weight kg [lb]</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.6 [0.6], 12.6 [0.8], 17.0 [1.1]</td>
<td>35 [5075]</td>
<td>40 [5800]</td>
<td>8.000 [8000]</td>
<td>9 [20]</td>
</tr>
<tr>
<td>25.4 [1.5], 34.2 [2.1]</td>
<td></td>
<td></td>
<td>6.300 [6300]</td>
<td></td>
</tr>
<tr>
<td>41.2 [2.5], 47.1 [2.9], 56.7 [3.5], 63.5 [3.9]</td>
<td></td>
<td></td>
<td>5.700 [5700]</td>
<td>15 [33]</td>
</tr>
<tr>
<td>83.6 [5.1], 90.7 [5.5]</td>
<td></td>
<td></td>
<td>4.700 [4700]</td>
<td>18 [40]</td>
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<tr>
<td>108.0 [6.6], 130.0 [7.9]</td>
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<td>35 [77]</td>
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</tbody>
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The table values can change in function of the configuration.

S ... - SM ...
Wheel Drive Gearboxes

Features:
- Available with or without static brake
- Available with or without hydraulic or electric motors
- Compact design

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<tbody>
<tr>
<td>S 050 - S 050 M</td>
<td>3.75 : 1</td>
<td>2.500 [1842.5]</td>
<td>50.000 [11250]</td>
<td>500 [500]</td>
<td>35 [77]</td>
</tr>
<tr>
<td>S 070 - S 070 M</td>
<td>4.75 : 1</td>
<td>3.500 [2579.5]</td>
<td></td>
<td>1000 [1000]</td>
<td>43 [95]</td>
</tr>
<tr>
<td>S 242</td>
<td>12.3 : 46.5</td>
<td>2.800 [2063.6]</td>
<td></td>
<td>3000 [3000]</td>
<td>42 [93]</td>
</tr>
<tr>
<td>S 243</td>
<td>109</td>
<td>3.000 [2211.0]</td>
<td></td>
<td>3500 [3500]</td>
<td>49 [108]</td>
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</tbody>
</table>
BTM
Spring Loaded Disc Brakes

Features:
• Braking torque up to 520 Nm [383.2 lbf.ft]
• Suitable for different input / output shafts and flanges

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<tbody>
<tr>
<td>BTM 07</td>
<td>60 [44.2] - 80 [59.0]</td>
<td></td>
<td>0,4 [58] - 0,6 [87]</td>
<td></td>
</tr>
<tr>
<td>BTM 11</td>
<td>100 [73.7] - 120 [88.4]</td>
<td></td>
<td>0,7 [102] - 0,9 [131]</td>
<td></td>
</tr>
<tr>
<td>BTM 18</td>
<td>170 [125.3] - 190 [140.0]</td>
<td></td>
<td>1,1 [160] - 1,3 [189]</td>
<td></td>
</tr>
<tr>
<td>BTM 24</td>
<td>230 [169.5] - 250 [184.3]</td>
<td></td>
<td>1,5 [218] - 1,7 [247]</td>
<td></td>
</tr>
<tr>
<td>BTM 42</td>
<td>400 [294.8] - 440 [324.3]</td>
<td></td>
<td>1,7 [247] - 1,9 [276]</td>
<td></td>
</tr>
<tr>
<td>BTM 50</td>
<td>480 [353.8] - 520 [383.2]</td>
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</table>

BTM + MSU
Wheel Drive Motors with Spring Loaded Disc Brakes

Features:
• Braking torque up to 520 Nm [383.2 lbf.ft]
• Maximum radial load 7,000 N [1,575 lbf.ft]
• Wheel rim dimension from 8”

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<tbody>
<tr>
<td>BTM 42 / MSU 125</td>
<td>400 [294.8] - 440 [324.3]</td>
<td>375 [276.4]</td>
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<tbody>
<tr>
<td>BTM 32 / MSU 100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>23,3 [51]</td>
</tr>
<tr>
<td>BTM 42 / MSU 125</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>23,6 [52]</td>
</tr>
<tr>
<td>BTM 50 / MSU 160</td>
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<td>24 [53]</td>
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</tbody>
</table>
Pedals - Joysticks
Multi-functional Digital Controls

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
- Suitable for hydraulic system up to 2 closed loop pumps and 2 variable displacement motors
- Several programs for different kind of hydrostatic transmissions already on board
- Easy to install and configure
- 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
Accessories for Complete Integrated Systems
Customized Design by HANSA-TMP

- **Gear Pumps**
- **Pump Drives**
- **Special Manifolds and Valves** (integrated control circuits, self levelling bucket valves, etc.)
- **Customized Bell Housings**
- **Spin-on Filters**
- **Front-Bearings for Belt Drive**
- **Hydraulic and Electric Pedals**
- **Hydraulic and Electric Joysticks**
- **Electric Motors for Wheel Drive Gearboxes**
- **Measure and Conversion Fittings**
Agriculture & Forestry
Examples of Applications

FRUIT HARVESTERS

Components:
- Tandem closed loop axial piston pump
- Electric joystick
- Electronic control unit

MULTIPURPOSE TRACTORS

Components:
- Tandem closed loop axial piston pump
- Electric joystick
- Hydraulic joystick and pedal

FORESTRY FORWARDERS

Components:
- Tandem closed loop axial piston pump
- Load sensing pump
- Radial piston motor
- Pump drive
- Electronic control unit
- Electric pedal
Environment
Examples of Applications

**HARVESTING MACHINES**

Components:
- Closed loop axial piston pump
- Axial piston motor

**MOWERS (SELF PROPELLED)**

Components:
- Closed loop axial piston pump
- Axial piston motor
- Customized bell housing
- Gear pump
- Electronic control unit

**MOWERS (REMOTE CONTROLLED)**

Components:
- Triple closed loop axial piston pump
- Axial piston motor
- Customized bell housing
- Gear pump
- Electronic control unit
Construction & Handling
Examples of Applications

SWEEPERS

Components:
- Closed loop axial piston pump
- Wheel drive unit

AMPHIBIOUS VEHICLES

Components:
- Tandem closed loop axial piston pump
- Electronic control unit

MINI LOADERS

Components:
- Close loop axial piston pump
- Hydraulic pedal
ROAD & SOIL COMPACTORS

Components:
- Closed loop axial piston pump
- Axial piston motor

MINI DUMPERS

Components:
- Tandem closed loop axial piston pump
- Wheel drive unit

SKID STEER LOADERS

Components:
- Tandem closed loop axial piston pump
- Hydraulic joystick
- Self levelling bucket valve