

MA-HVH-01-K Hydraulic Point Machine Family



Upon new requirements of the users and of the application of new locking mechanisms, Műszer Automatika Kft has developed the outside driven Point Machine Family HVH-01-K. The new point machine is based on MA-HVH (01/D, 02) hydraulic point machines that have been manufactured for a several years already but it can be placed beside the points.

The point machine family is suitable for setting, hydraulic or mechanic locking of the turnouts mounted with conventional check-lock type or Spherolock locking structures and for the turnouts equipped with Hydrolink force-transmission equipment in case of high-radius turnouts, it can also supervise and check-back their end-position in an electrical way.

The connecting surfaces of the setting rod and checking rod of the MA-HVH-01-K point machine family is identical with those of conventional ones, so they are compatible with all the types of point machines used before.

Types:

MA-HVH-01-K- D1/ - 1-phase, D2/ - 2-phase, D3/ - 3-phase

The point machines are trailable ones, the trailing resistance can be adjusted between 9-12 kN, but its value is set to 10 kN during the manufacture.

In case of type "A" the fixing in end-position and the trailing resistance is ensured by 2 pieces of brake valve blocks mounted on the hydraulic working cylinder and a brake valve built in the valve block. The brake valves can be set according to the requirements of the operational environment after removing their protecting cap. In case of type "A" there is a so called mechanical lock built in the point machine. The mechanical lock (latch) ensures the fixing against the remaining force independently of the hydraulic fixing.

In case of versions "B" and "C" the point machine is equipped with a hydraulically released mechanical fixing unit, so the trailing resistance of the point machine is ensured collectively by both hydraulically realized fixing and a mechanical lock (latch) which can be released hydraulically. The fixing force of disc spring mounted latch structure is between 5.5 and 6 kN.

Due to the selection of the suitable structural configuration, it cannot cause any problem, in case of using point machine with a hydraulically released mechanic latch, even if the setting force requirement

exceeds the value of trailing/fixing force. In this case the points setting and the fixing in end-position takes place without any problem, no self-trailing, setting or fixing problems may occur.

The point machine can be reversed promptly during the setting; in case of a current outage it can be reset manually. The manual setting is realized by a manual pump which is inserted in the hydraulic circle, the setting direction can be determined by a reversing pin. The manual pump can be accessed through a door located on the cover of the point machine which can be opened by means of a form key. The manual setting lever can be taken out through the same door and put back after completing the manual operation, without removing the cover. The length of the hand lever is selected so that the manual setting can be realized by little force, even in case of high-radius turnouts equipped with Spherolock-Hydraulink system the setting force of which is 6.5 kN.

Due to the location of the manual pump the visibility to the track in both directions is ensured during the manual setting so reducing the possibility of accidents.

Main technical data:

	Setting time:	Adjusted force in running in the brake:
At a simple turnout:	2.5±0,5 sec	5kN
At a high-radius turnout:	6±1 sec	6.5kN
Maximum power consumption:	680 W	
Operating temperature range:	-25...+80°C	
Protection of the point machine housing:	IP 44	

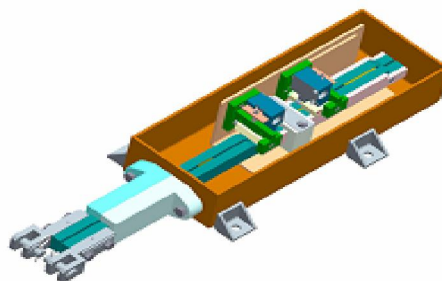
A – To all the simple turnouts currently used in Hungary, mounted with mechanical fixing unit.

B - To all the simple turnouts currently used in Hungary, mounted with hydraulically released mechanical fixing unit.

C – To high-radius turnouts mounted with Spherolock locking mechanism and Hydraulink force transmission equipment, equipped with a hydraulically released mechanical fixing unit.

Connecting product for increased safety:

MA-KVE Intermediate End-position Checking Device



The inner cabling of the HVH-01-K point machine is designed and constructed in a way that it can be connected to the Intermediate End-position Checking Device (MA-KVE) manufactured by Műszer Automatika Kft without any modification, and it can be matched to the interlocking equipment by means of a connection compatible with the 4-wire setting and checking electric circuits.

The MA-KVE Intermediate End-position Checking Device can be applied to the electrical check-back of the end-position of the turnouts with 60-170 mm points opening. The limit switches can be adjusted continuously (stepless regulation) in the whole points opening range. The checking rulers can be connected to the checking rods via insulated connecting heads.