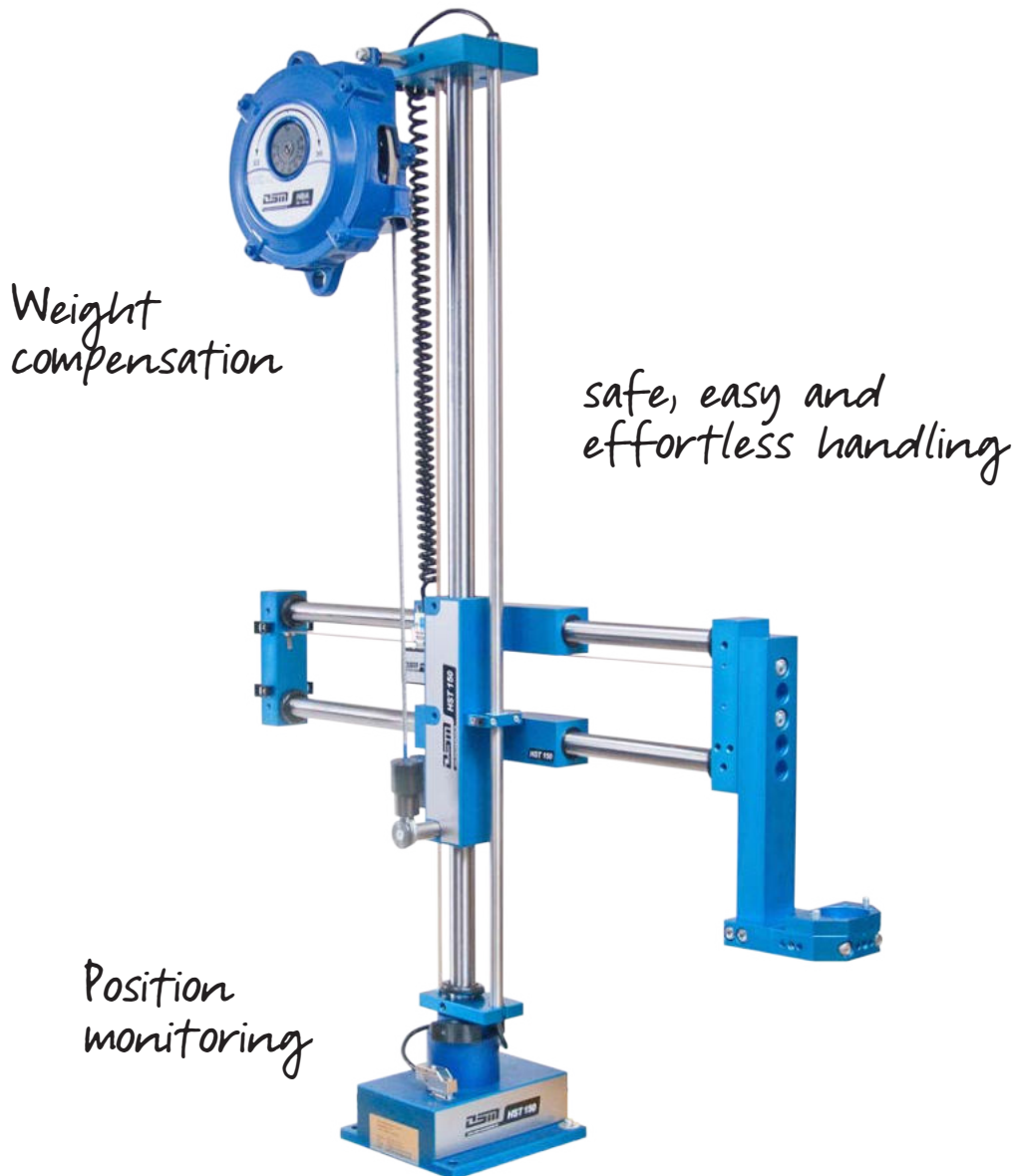


Handling stand HST

Simply working better – handling systems from DSM



Daily recurring operations makes the tool with time heavier and heavier for the user – if you also considers the reaction torque and incorrect holding of the tool, a disorder of the hand-arm-shoulder system cannot be excluded. Preserve the health of your employees!

A torque support with weight compensation is essential for fatigue-free work in assembly. The additional control of the position of the tool enables cost-effective monitoring of complex tightening sequences in the manual assembly.

Handling stand HST

Advanced handling – precise, reaction-free and clever

With the HST series, DSM offers advanced handling devices for the tasks and applications of manually guided and semi-automated assembly.

Equipped with absolute sensor technology and integrated positioning electronic, the HST handling stand extend the functionality of your tightening system.

The positioning electronic PoSys in conjunction with a higher-level control system check whether a defined sequence of operations is maintained.

No screw will be forgotten and even complex tightening sequences can be specified and monitored – or call up the corresponding sequence in your DSM control system via the screw position.

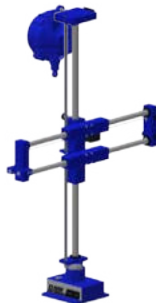


HST-40 | HST-40-XY

Up to 40 Nm

Tool weight max. 5 kg

Stroke Y: 300 mm Z: 400 mm

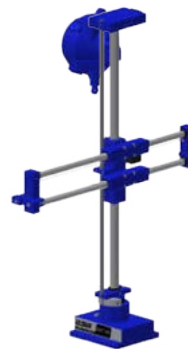


HST-150 | HST-150-XY

Up to 150 Nm

Tool weight max. 15 kg

Stroke Y: 450 mm Z: 720 mm



HST-300 | HST-300-XY

Up to 300 Nm

Tool weight max. 30 kg

Stroke Y: 600 mm Z: 850 mm



HST-600 | HST-600-XY

Up to 600 Nm

Tool weight max. 40 kg

Stroke Y: 550 mm Z: 750 mm

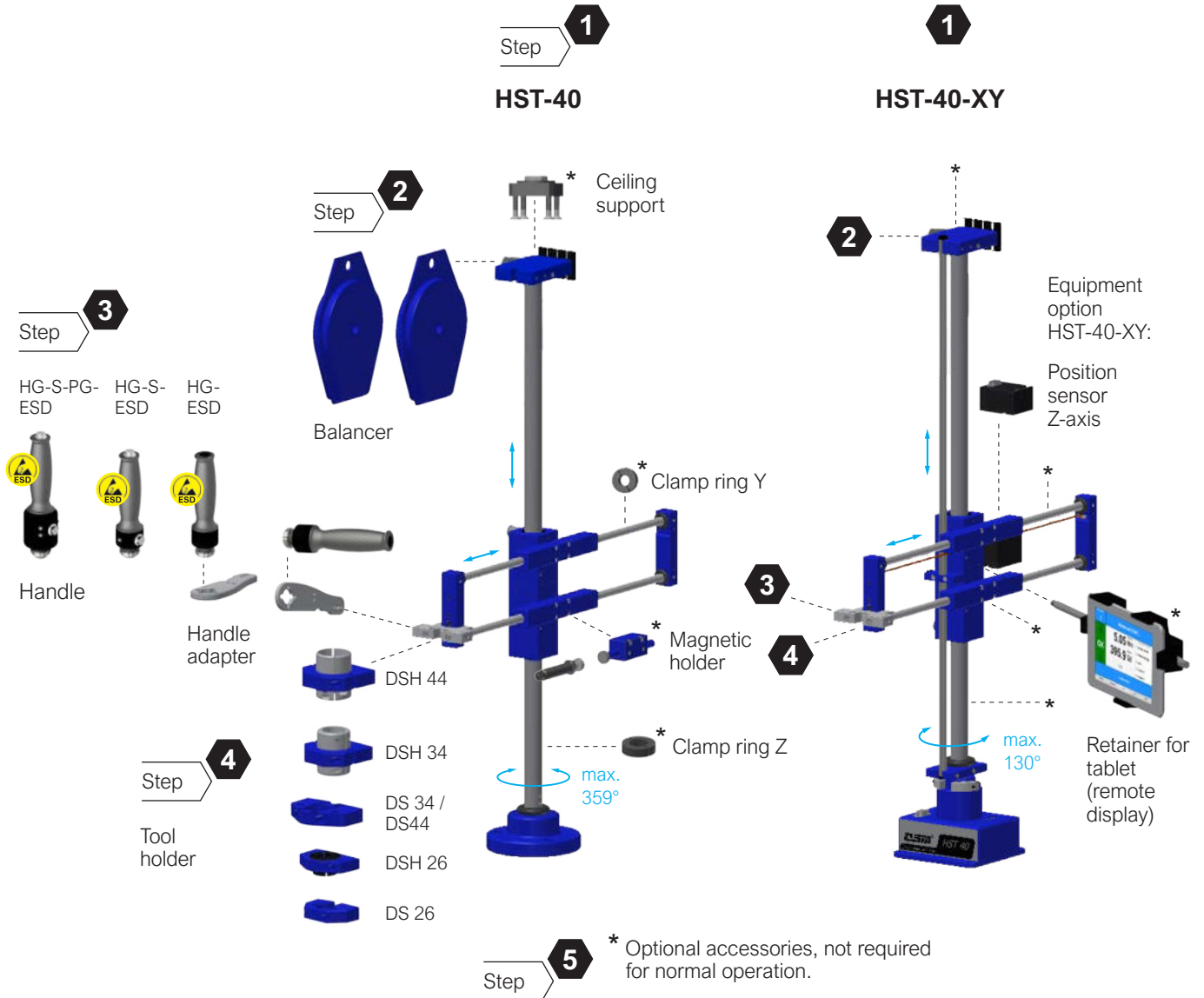
HST-40

Precise, reaction-free and extremely light handling in the entire workspace.

Absorption of all reaction forces and compensation of **torques up to 40 Nm**.

Optimal smooth-running weight compensation with a maximum **tool weight of 5 kg**.

Extensive range of equipment options for the models **HST-40** (without sensor) and **HST-40-XY** (with integrated position monitoring) available.



Use the following steps to assemble your handling stand and select the optimal components from the HST-40 series for your application.

Step 1 Page 4

Choose between the variant HST-40 and HST-40-XY

Step 2 Page 5

Choose a balancer for the weight compensation

Step 3 Page 6

Choose a handle

Step 4 Page 7

Choose a tool holder

Step 5 Page 7

Add optional accessories if necessary

Step 1

Variant of the handling stand (Size HST-40)

			HST-40	HST-40-XY
Absolute XY position sensor			--	✓
Position controller (PoSys) integrated in the stand			--	✓
Vertical stroke (Z)	[mm]		400	400
Horizontal stroke (Y)	[mm]		300	300
Swivel angle	[°]	max.	359	130
Reaction torque	[Nm]	up to max.	40	40
Tool weight	[kg]	max.	5	5
Height of vertical stand	[mm]		840	890
Length of horizontal arm (without tool holder)	[mm]		550	550
Weight horizontal arm	[kg]		2,5	2,5
Weight handling stand	[kg]		16	16
Article number			H-6002340	see Page 5

HST-40 | HST-40-XY – Robust designed handling stand

Pedestal with mounting holes, vertical stand with precision shaft, horizontal arm with precision double shaft as well as guides with smooth-running industrial bearings. Construction to accommodate torsion forces with fixing points for balancer and cable, prepared for the mounting of tool holder and handle.

HST-40-XY – Position monitoring of assembly tool

Fixed sequences have to be observed by a lot of applications of the hand-guided and the semi-automated assembly. Equipped with an XY sensor system (Z sensor optional) and with an position controller (PoSys) integrated in the pedestal, the HST-40-XY extends the functionality of your tightening system. The position electronic monitors in conjunction with a higher-level control system that the required sequence is observed.

No screw will be forgotten – even complex tightening sequences can be specified and monitored. Or you select the corresponding sequence program on your DSM control system via the screw position.

Other features:

- Absolute XY position measurement – in the rotation axis and in the horizontal arm
- Position input via teach-in, storage up to 200 positions
- Position monitoring
- Reporting of the stored positions „Pos reached“
- Direct output mode as „XY position“
- DSM software for programming and configuration of the positioning controller
- USB interface for connection with the DSM application software, incl. USB cable
- System bus interface for communication with DSM control system, for power supply via control system or plug-in power supply unit
- TCP/IP interface for communication with the DSM application software
- Optional Profibus interface, Profinet interface or EtherCAT interface for connection to a higher-level control system



Equipment option for handling stand HST-40-XY

Type		Article number
HST-40-Zsens	Position sensor Z-axis, incl. Y-connection cable	H-6006012

HST-40-XY equipped with position controller PoSys | Executions

Type		Article number
HST-40-XY-PB	Handling stand with XY sensors and integrated PoSys with Profibus interface	H-6002345
HST-40-XY-PN	Handling stand with XY sensors and integrated PoSys with Profinet interface	H-6002346
HST-40-XY-EC	Handling stand with XY sensors and integrated PoSys with EtherCAT interface	H-6002347

Equipment option

Type	Article number
Plug-in power supply unit AC 230 V / 50 Hz DC 24 V / 1 A (for use without DSM control system)	DSM-600611

System bus accessories

Type	Article number
System bus cable 2 m	MS-1003002
System bus cable 5 m	MS-1003005
System bus terminating resistor	MS-1003030
Y-piece for system bus connection	MS-1003046

Step 2

Take tool weight and the weight of the horizontal arm into account when choosing the balancer.

Handling balancer HBA for handling stand HST-40 | HST-40-XY

Type	Ideal for DSM nutrunner	Weight compensation, load capacity adjustable	Article number
HBA-2---3,5-kg	DSH 26 / DS 26	from 2 kg up to 3,5 kg	H-6008004
HBA-5---8,5-kg	DSH 34 / DS 34 / DSH 44 / DS 44	from 5 kg up to 8,5 kg	H-6008009

Step **3**

Ergonomically formed handles for precise guidance of the tool (nutrunner). Versatile mounting possibilities via handle adapter. Execution with start button for the direct forwarding of the start signal to the control system. Variant with rotary switch for switching between the preselected sequence programme and an alternative sequence.

Handle

Type		Article number
HG-ESD	Standard handle in ESD-compliant design	H-6007820
HG-S-ESD	Handle with start button (double) in ESD-compliant design	H-6007825
HG-S-PG-ESD	Handle with start button (double) and programme switchover in ESD-compliant design	H-6007830

Standard adapter for the vertical and horizontal assembly of the handle. The installation can be made on the right side as well as on the left side of the tool holder of the handling stand.

Handle adapter for the HST-40 series

Type		Article number
HG-A-H40	Handle adapter kit HST-40	H-6007886

Choose the appropriate cable depending on the use of the handle.

If you are using a nutrunner of the DS 34 or DS 44 series the connection to the DSM control is made via the bus line of the DS nutrunner – the handle cable is plugged into the SB socket at the nutrunner. The cable is available in two different lengths suitable for the respective assembly situation.

Alternatively, the handle can be connected directly with the control system or with a higher-level control system. Corresponding cables for this can be found in the table below.

Handle cable for the HST-40 series

Type	Connection	Cable length	Article number
HG-K-DS34-44-160	from HG-S-ESD to DS 34 / DS 44	160 mm	H-6007940
HG-K-DS34-44-300	from HG-S-ESD to DS 34 / DS 44	300 mm	H-6007941
HG-K-24V-4.XX	from HG-S-ESD to MultiBasic / MultiClassic / MultiPro	5 m	H-6007905
HG-K-24V-5.XX	from HG-S-ESD to MultiPro 3G	5 m	H-6007910
HG-K-24-oK	from HG-S-ESD to ... (open cable ends)	5 m	H-6007915
HGPG-K-DS34-44-160	from HG-S-PG-ESD to DS 34 / DS 44	160 mm	H-6007744
HGPG-K-DS34-44-300	from HG-S-PG-ESD to DS 34 / DS 44	300 mm	H-6007745
HGPG-K-24-oK	from HG-S-PG-ESD to ... (open cable ends)	2 m	H-6007720

Step 4

The tool / nutrunner is attached to the handling stand with a suitable holder. Tool holders adapted to the size of the DSM nutrunners that can be used can be selected here. Adaptation of third-party products is made with the universal tool holder or a customised solution on request.

Handling tool holder for the HST-40 series

Type	Tool holder for	Article number
HWA-40-DS26	DS 26 Built-in nutrunner	H-6008426
HWA-40-DSH26	DSH 26 Hand-held nutrunner	H-6008427
HWA-40-DS34/DS44	DS 34 / DS 44 Built-in nutrunner	H-6008434
HWA-40-DSH34	DSH 34 Hand-held nutrunner	H-6008234
HWA-40-DSH38	DSH 38 Hand-held nutrunner	H-6008238
HWA-40-DSH44	DSH 44 Hand-held nutrunner	H-6008244
HWA-40-Uni-36-42	36 - 42 mm clamping diameter, Universal tool holder	H-6008405

Step 5

Accessories for individual adaptation of the handling stand for your application.

Optional accessories* Handling stand HST-40

Type		Article number
HST-40-MH	Magnetic holder Magnetically holding device for the Y-axis to fix the nutrunner / tool in park position	H-6006406
HST-40-DA	Ceiling support Additional fixing of the handling stand via a pivoted support designed to improve the load carrying capacity	H-6006410
HST-40-KL-Y	Clamp ring for Y-axis Variable positionable limiter of the horizontal stroke for the fast reaching of the tool position	H-6006420
HST-40-KL-Z-150-KL-Y	Clamp ring for Z-axis Variable positionable limiter of the vertical stroke for the fast reaching of the tool position	H-6006430
HST-40-SWA**	Stops for swivel angle limitation (rotation axis) Two circle segments with rubber stops for the limitation of the swivel angle adjustable in steps of 30 degrees (min. 20° / max. 130°)	H-6006440
HST-FA	Retainer for tablet (remote display) Adjustable retainer for the remote display HMI 7" incl. assembly kit; Remote display only in conjunction with MultiPro 3G (BT module) usable	H-6006005

* No optional accessories are required for normal operation.

** Standard for the HST-40-XY version of the handling stand.

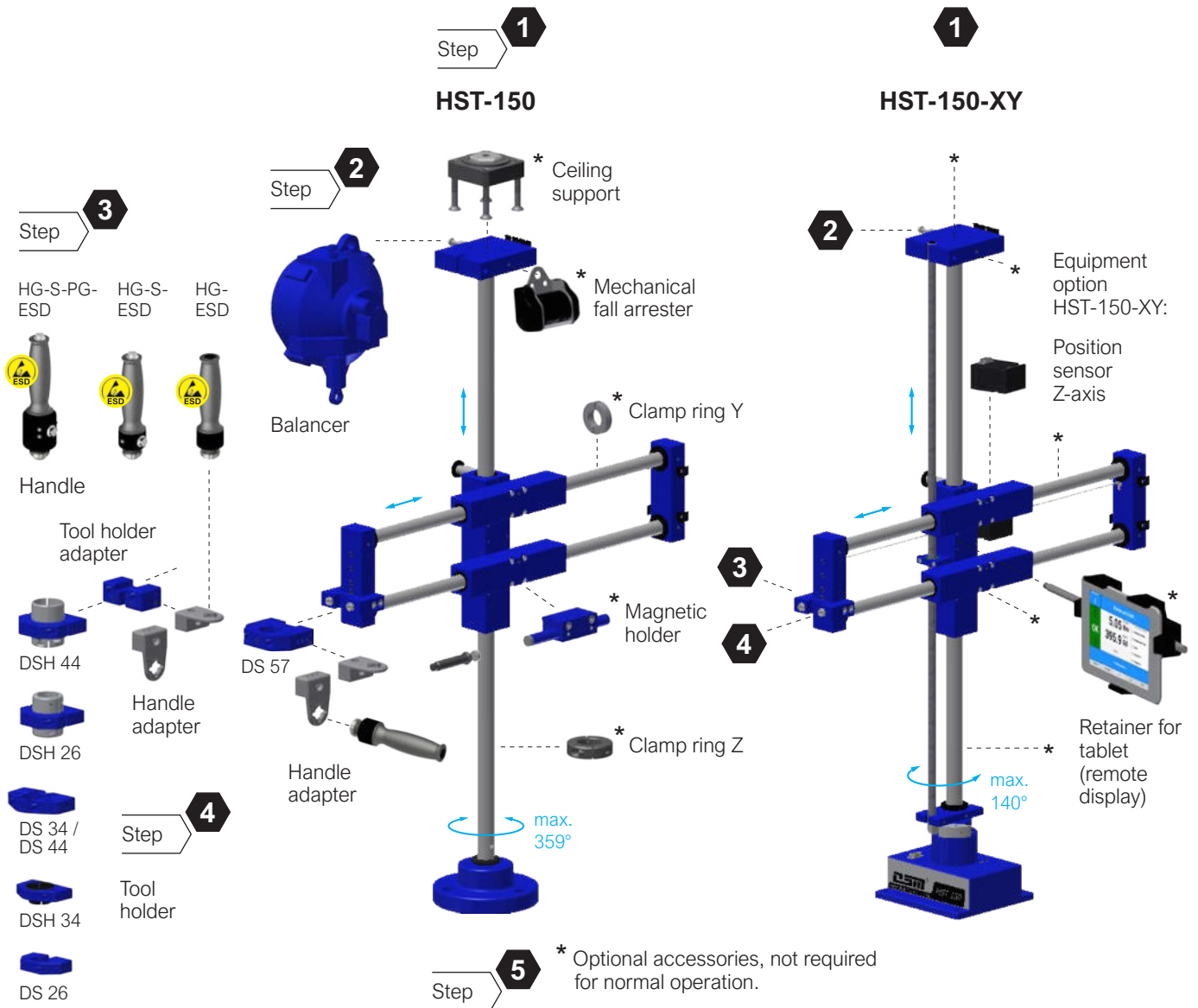
HST-150

Precise, reaction-free and extremely light handling in the entire workspace.

Absorption of all reaction forces and compensation of **torques up to 150 Nm**.

Optimal smooth-running weight compensation with a maximum **tool weight of 15 kg**.

Extensive range of equipment options for the models **HST-150** (without sensor) and **HST-150-XY** (with integrated position monitoring) available.



Use the following steps to assemble your handling stand and select the optimal components from the HST-150 series for your application.

Step 1 Page 9

Choose between the variant HST-150 and HST-150-XY

Step 2 Page 10

Choose a balancer for the weight compensation

Step 3 Page 11

Choose a handle

Step 4 Page 12

Choose a tool holder

Step 5 Page 13

Add optional accessories if necessary

Step 1

Variant of the handling stand (Size HST-150)

			HST-150	HST-150-XY
Absolute XY position sensor			--	✓
Position controller (PoSys) integrated in the stand			--	✓
Vertical stroke (Z)	[mm]		720	720
Horizontal stroke (Y)	[mm]		450	450
Swivel angle	[°]	max.	359	140
Reaction torque	[Nm]	up to max.	150	150
Tool weight	[kg]	max.	15	15
Height of vertical stand	[mm]		1150	1200
Length of horizontal arm (without tool holder)	[mm]		800	800
Weight horizontal arm	[kg]		14	14
Weight handling stand	[kg]		35	35
Article number			H-6002150	see Page 10

HST-150 | HST-150-XY – Robust designed handling stand

Pedestal with mounting holes, vertical stand with precision shaft, horizontal arm with precision double shaft as well as guides with smooth-running industrial bearings. Construction to accommodate torsion forces with fixing points for balancer and cable, prepared for the mounting of tool holder and handle.

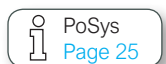
HST-150-XY – Position monitoring of assembly tool

Fixed sequences have to be observed by a lot of applications of the hand-guided and the semi-automated assembly. Equipped with an XY sensor system (Z sensor optional) and with an position controller (PoSys) integrated in the pedestal, the HST-150-XY extends the functionality of your tightening system. The position electronic monitors in conjunction with a higher-level control system that the required sequence is observed.

No screw will be forgotten – even complex tightening sequences can be specified and monitored. Or you select the corresponding sequence program on your DSM control system via the screw position.

Other features:

- Absolute XY position measurement – in the rotation axis and in the horizontal arm
- Position input via teach-in, storage up to 200 positions
- Position monitoring
- Reporting of the stored positions „Pos reached“
- Direct output mode as „XY position“
- DSM software for programming and configuration of the positioning controller
- USB interface for connection with the DSM application software, incl. USB cable
- System bus interface for communication with DSM control system, for power supply via control system or plug-in power supply unit
- TCP/IP interface for communication with the DSM application software
- Optional Profibus interface, Profinet interface or EtherCAT interface for connection to a higher-level control system



Equipment option for handling stand HST-150-XY

Type		Article number
HST-150-300-600-Zsens	Position sensor Z-axis, incl. Y-connection cable	H-6006014

HST-150-XY equipped with position controller PoSys | Executions

Type		Article number
HST-150-XY-PB	Handling stand with XY sensors and integrated PoSys with Profibus interface	H-6002155
HST-150-XY-PN	Handling stand with XY sensors and integrated PoSys with Profinet interface	H-6002154
HST-150-XY-EC	Handling stand with XY sensors and integrated PoSys with EtherCAT interface	H-6002153

Equipment option

Type	Article number
Plug-in power supply unit AC 230 V / 50 Hz DC 24 V / 1 A (for use without DSM control system)	DSM-600611

System bus accessories

Type	Article number
System bus cable 2 m	MS-1003002
System bus cable 5 m	MS-1003005
System bus terminating resistor	MS-1003030
Y-piece for system bus connection	MS-1003046



Take tool weight and the weight of the horizontal arm into account when choosing the balancer.

Handling balancer HBA for handling stand HST-150 | HST-150-XY

Type	Ideal for DSM nutrunner	Weight compensation, load capacity adjustable	Article number
HBA-15---22-kg	DSH 34 / DS 34 / DSH 44 / DS 44	from 15 kg up to 22 kg	H-6008022
HBA-22---30-kg	DS 57	from 22 kg up to 30 kg	H-6008030

Step **3**

Ergonomically formed handles for precise guidance of the tool (nutrunner). Versatile mounting possibilities via handle adapter. Execution with start button for the direct forwarding of the start signal to the control system. Variant with rotary switch for switching between the preselected sequence programme and an alternative sequence.

Handle

Type		Article number
HG-ESD	Standard handle in ESD-compliant design	H-6007820
HG-S-ESD	Handle with start button (double) in ESD-compliant design	H-6007825
HG-S-PG-ESD	Handle with start button (double) and programme switchover in ESD-compliant design	H-6007830

Standard adapter for the vertical and horizontal assembly of the handle. The installation can be made on the right and left side as well as on the front of the tool holder of the handling stand.

Handle adapter for the HST-150 series

Type		Article number
HG-A-H150-300-600	Handle adapter kit HST-150 / HST-300 / HST-600	H-6007885

Choose the appropriate cable depending on the use of the handle.

If you are using a nutrunner of the DS 34, DS 44 or DS 57 series the connection to the DSM control is made via the bus line of the DS nutrunner – the handle cable is plugged into the SB socket at the nutrunner. The cable is available in two different lengths suitable for the respective assembly situation.

Alternatively, the handle can be connected directly with the control system or with a higher-level control system. Corresponding cables for this can be found in the table below.

Handle cable for the HST-150 series

Type	Connection	Cable length	Article number
HG-K-DS34-44-160	from HG-S-ESD to DS 34 / DS 44	160 mm	H-6007940
HG-K-DS34-44-300	from HG-S-ESD to DS 34 / DS 44	300 mm	H-6007941
HG-K-DS57-80-300	from HG-S-ESD to DS 57 / DS 80	300 mm	H-6007959
HG-K-DS57-80-500	from HG-S-ESD to DS 57 / DS 80	500 mm	H-6007960
HG-K-24V-4.XX	from HG-S-ESD to MultiBasic / MultiClassic / MultiPro	5 m	H-6007905
HG-K-24V-5.XX	from HG-S-ESD to MultiPro 3G	5 m	H-6007910
HG-K-24-oK	from HG-S-ESD to ... (open cable ends)	5 m	H-6007915
HGPG-K-DS34-44-160	from HG-S-PG-ESD to DS 34 / DS 44	160 mm	H-6007744
HGPG-K-DS34-44-300	from HG-S-PG-ESD to DS 34 / DS 44	300 mm	H-6007745
HGPG-K-24-oK	from HG-S-PG-ESD to ... (open cable ends)	2 m	H-6007720
HGPG-K-DS57-80-300	from HG-S-PG-ESD to DS 57 / DS 80	300 mm	H-6007756
HGPG-K-DS57-80-500	from HG-S-PG-ESD to DS 57 / DS 80	500 mm	H-6007757

Step **4**

The tool / nutrunner is attached to the handling stand with a suitable holder. Tool holders adapted to the size of the DSM nutrunners that can be used can be selected here. Adaptation of third-party products is made with the universal tool holder or a customised solution on request.

Handling tool holder for the HST-150 series

Type	Tool holder for	Article number
HWA-150-DS57	DS 57 Built-in nutrunner	H-6008157
HWA-150-Uni-56-62	56 - 62 mm clamping diameter, Universal tool holder	H-6008155

The tool holders of the HST-40 can be attached to the handling stand HST-150 with the aid of a tool holder adapter.

Handling tool holder adapter for the HST-150 series

Type	Article number
HWA-150-AD	Adaptation of tool holders type „HWA-40“ to HST-150

HST-40 handling tool holder for the use with adapter HWA-150-AD

Type	Tool holder for	Article number
HWA-40-DS34/DS44	DS 34 / DS 44 Built-in nutrunner	H-6008434
HWA-40-DSH34	DSH 34 Hand-held nutrunner	H-6008234
HWA-40-DSH38	DSH 38 Hand-held nutrunner	H-6008238
HWA-40-DSH44	DSH 44 Hand-held nutrunner	H-6008244
HWA-40-Uni-36-42	36 - 42 mm clamping diameter, Universal tool holder	H-6008405

Step **5**

Accessories for individual adaptation of the handling stand for your application.

Optional accessories* Handling stand HST-150

Type		Article number
HST-150-MH	Magnetic holder Magnetically holding device for the Y-axis to fix the nutrunner / tool in park position	H-6006155
HST-150-DA	Ceiling support Additional fixing of the handling stand via a pivoted support designed to improve the load carrying capacity	H-6006105
HST-40-KL-Z-150-KL-Y	Clamp ring for Y-axis Variable positionable limiter of the horizontal stroke for the fast reaching of the tool position	H-6006430
HST-150-KL-Z-300-KL-Y	Clamp ring for Z-axis Variable positionable limiter of the vertical stroke for the fast reaching of the tool position	H-6006330
HST-150-300-FS	Mechanical fall arrester Fall protection for horizontal arm to prevent damage in case of a defect of the counterbalance system	H-6006315
HST-150-SWA**	Stops for swivel angle limitation (rotation axis) Two circle segments with rubber stops for the limitation of the swivel angle adjustable in steps of 30 degrees (min. 20° / max. 140°)	H-6006415
HST-FA	Retainer for tablet (remote display) Adjustable retainer for the remote display HMI 7" incl. assembly kit; Remote display only in conjunction with MultiPro 3G (BT module) usable	H-6006005

* No optional accessories are required for normal operation.

** Standard for the HST-150-XY version of the handling stand.

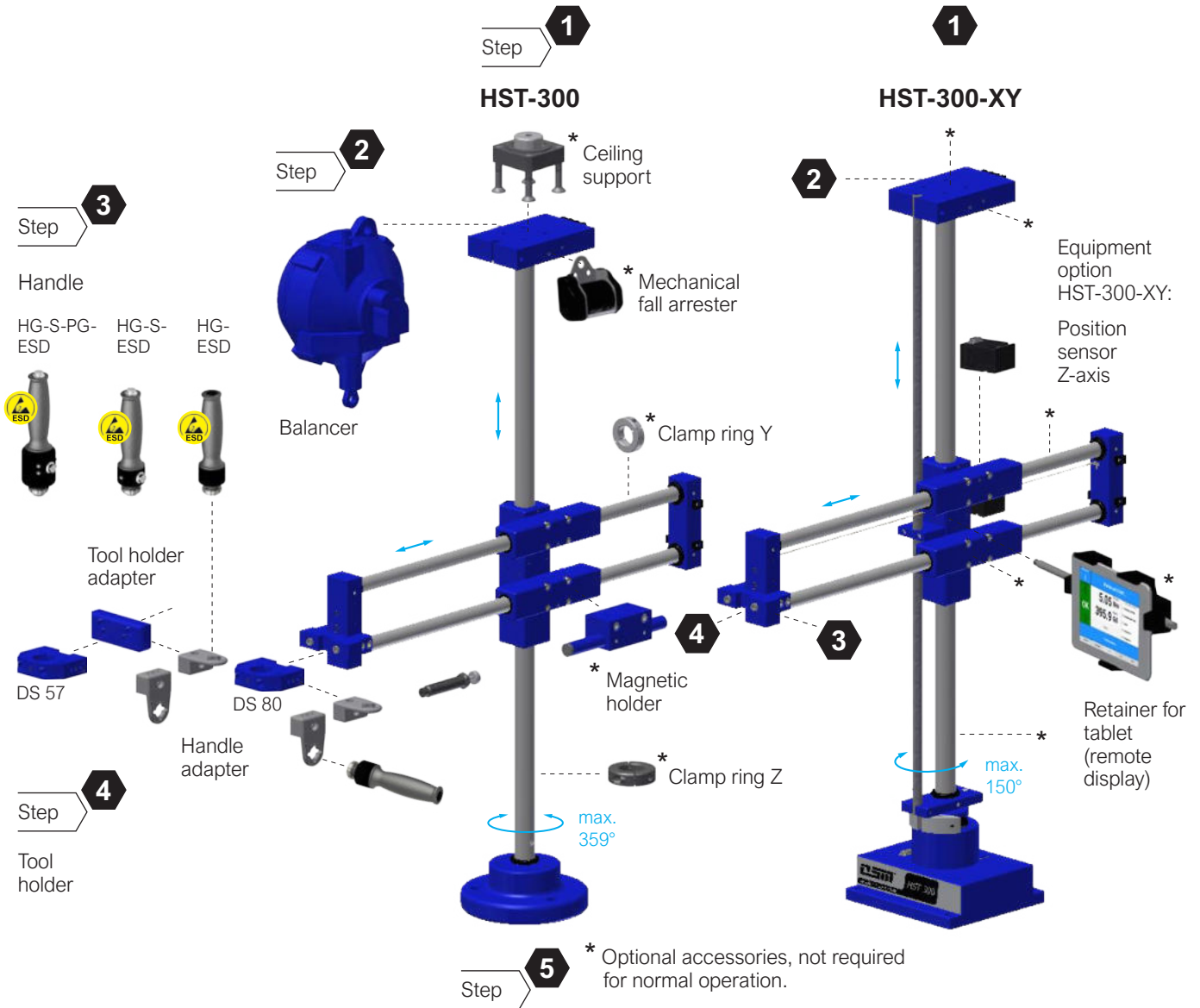
HST-300

Precise, reaction-free and extremely light handling in the entire workspace.

Absorption of all reaction forces and compensation of **torques up to 300 Nm**.

Optimal smooth-running weight compensation with a maximum **tool weight of 30 kg**.

Extensive range of equipment options for the models **HST-300** (without sensor) and **HST-300-XY** (with integrated position monitoring) available.



Use the following steps to assemble your handling stand and select the optimal components from the HST-300 series for your application.

Step 1 Page 15

Choose between the variant HST-300 and HST-300-XY

Step 2 Page 16

Choose a balancer for the weight compensation

Step 3 Page 17

Choose a handle

Step 4 Page 18

Choose a tool holder

Step 5 Page 19

Add optional accessories if necessary

Step 1

Variant of the handling stand (Size HST-300)

			HST-300	HST-300-XY
Absolute XY position sensor			--	✓
Position controller (PoSys) integrated in the stand			--	✓
Vertical stroke (Z)	[mm]		850	850
Horizontal stroke (Y)	[mm]		600	600
Swivel angle	[°]	max.	359	150
Reaction torque	[Nm]	up to max.	300	300
Tool weight	[kg]	max.	30	30
Height of vertical stand	[mm]		1320	1390
Length of horizontal arm (without tool holder)	[mm]		980	980
Weight horizontal arm	[kg]		21	21
Weight handling stand	[kg]		60	60
Article number			H-6002157	see Page 16

HST-300 | HST-300-XY – Robust designed handling stand

Pedestal with mounting holes, vertical stand with precision shaft, horizontal arm with precision double shaft as well as guides with smooth-running industrial bearings. Construction to accommodate torsion forces with fixing points for balancer and cable, prepared for the mounting of tool holder and handle.

HST-300-XY – Position monitoring of assembly tool

Fixed sequences have to be observed by a lot of applications of the hand-guided and the semi-automated assembly. Equipped with an XY sensor system (Z sensor optional) and with an position controller (PoSys) integrated in the pedestal, the HST-300-XY extends the functionality of your tightening system. The position electronic monitors in conjunction with a higher-level control system that the required sequence is observed.

No screw will be forgotten – even complex tightening sequences can be specified and monitored. Or you select the corresponding sequence program on your DSM control system via the screw position.

Other features:

- Absolute XY position measurement – in the rotation axis and in the horizontal arm
- Position input via teach-in, storage up to 200 positions
- Position monitoring
- Reporting of the stored positions „Pos reached“
- Direct output mode as „XY position“
- DSM software for programming and configuration of the positioning controller
- USB interface for connection with the DSM application software, incl. USB cable
- System bus interface for communication with DSM control system, for power supply via control system or plug-in power supply unit
- TCP/IP interface for communication with the DSM application software
- Optional Profibus interface, Profinet interface or EtherCAT interface for connection to a higher-level control system



Equipment option for handling stand HST-300-XY

Type		Article number
HST-150-300-600-Zsens	Position sensor Z-axis, incl. Y-connection cable	H-6006014

HST-300-XY equipped with position controller PoSys | Executions

Type		Article number
HST-300-XY-PB	Handling stand with XY sensors and integrated PoSys with Profibus interface	H-6002156
HST-300-XY-PN	Handling stand with XY sensors and integrated PoSys with Profinet interface	H-6002158
HST-300-XY-EC	Handling stand with XY sensors and integrated PoSys with EtherCAT interface	H-6002160

Equipment option

Type	Article number
Plug-in power supply unit AC 230 V / 50 Hz DC 24 V / 1 A (for use without DSM control system)	DSM-600611

System bus accessories

Type	Article number
System bus cable 2 m	MS-1003002
System bus cable 5 m	MS-1003005
System bus terminating resistor	MS-1003030
Y-piece for system bus connection	MS-1003046



Take tool weight and the weight of the horizontal arm into account when choosing the balancer.

Handling balancer HBA for handling stand HST-300 | HST-300-XY

Type	Ideal for DSM nutrunner	Weight compensation, load capacity adjustable	Article number
HBA-30---40-kg	DS 57 / DS 80	from 30 kg up to 40 kg	H-6008040

Step **3**

Ergonomically formed handles for precise guidance of the tool (nutrunner). Versatile mounting possibilities via handle adapter. Execution with start button for the direct forwarding of the start signal to the control system. Variant with rotary switch for switching between the preselected sequence programme and an alternative sequence.

Handle

Type		Article number
HG-ESD	Standard handle in ESD-compliant design	H-6007820
HG-S-ESD	Handle with start button (double) in ESD-compliant design	H-6007825
HG-S-PG-ESD	Handle with start button (double) and programme switchover in ESD-compliant design	H-6007830

Standard adapter for the vertical and horizontal assembly of the handle. The installation can be made on the right and left side as well as on the front of the tool holder of the handling stand.

Handle adapter for the HST-300 series

Type		Article number
HG-A-H150-300-600	Handle adapter kit HST-150 / HST-300 / HST-600	H-6007885

Choose the appropriate cable depending on the use of the handle.

If you are using a nutrunner of the DS 57 or DS 80 series the connection to the DSM control is made via the bus line of the DS nutrunner – the handle cable is plugged into the SB socket at the nutrunner. The cable is available in two different lengths suitable for the respective assembly situation.

Alternatively, the handle can be connected directly with the control system or with a higher-level control system. Corresponding cables for this can be found in the table below.

Handle cable for the HST-300 series

Type	Connection	Cable length	Article number
HG-K-DS57-80-160	from HG-S-ESD to DS 57 / DS 80	160 mm	H-6007958
HG-K-DS57-80-300	from HG-S-ESD to DS 57 / DS 80	300 mm	H-6007959
HG-K-DS57-80-500	from HG-S-ESD to DS 57 / DS 80	500 mm	H-6007960
HG-K-24V-4.XX	from HG-S-ESD to MultiBasic / MultiClassic / MultiPro	5 m	H-6007905
HG-K-24V-5.XX	from HG-S-ESD to MultiPro 3G	5 m	H-6007910
HG-K-24-oK	from HG-S-ESD to ... (open cable ends)	5 m	H-6007915
HGPG-K-24-oK	from HG-S-PG-ESD to ... (open cable ends)	2 m	H-6007720
HGPG-K-DS57-80-160	from HG-S-PG-ESD to DS 57 / DS 80	160 mm	H-6007755
HGPG-K-DS57-80-300	from HG-S-PG-ESD to DS 57 / DS 80	300 mm	H-6007756
HGPG-K-DS57-80-500	from HG-S-PG-ESD to DS 57 / DS 80	500 mm	H-6007757

Step **4**

The tool / nutrunner is attached to the handling stand with a suitable holder. Tool holders adapted to the size of the DSM nutrunners that can be used can be selected here. Adaptation of third-party products is made with a customised solution on request.

Handling tool holder for the HST-300 series

Type	Tool holder for	Article number
HWA-300-DS80	DS 80 Built-in nutrunner	H-6008380

The tool holders of the HST-150 can be attached to the handling stand HST-300 with the aid of a tool holder adapter.

Handling tool holder adapter for the HST-300 series

Type		Article number
HWA-300-AD	Adaptation of tool holders type „HWA-150“ to HST-300	H-6008153

HST-150 handling tool holder for the use with adapter HWA-300-AD

Type	Tool holder for	Article number
HWA-150-DS57	DS 57 Built-in nutrunner	H-6008157
HWA-150-Uni-56-62	56 - 62 mm clamping diameter, Universal tool holder	H-6008155

Step **5**

Accessories for individual adaptation of the handling stand for your application.

Optional accessories* Handling stand HST-300

Type		Article number
HST-300-MH	Magnetic holder Magnetically holding device for the Y-axis to fix the nutrunner / tool in park position	H-6006305
HST-300-600-DA	Ceiling support Additional fixing of the handling stand via a pivoted support designed to improve the load carrying capacity	H-6006310
HST-150-KL-Z-300-KL-Y	Clamp ring for Y-axis Variable positionable limiter of the horizontal stroke for the fast reaching of the tool position	H-6006330
HST-300-KL-Z-600-KL-YZ	Clamp ring for Z-axis Variable positionable limiter of the vertical stroke for the fast reaching of the tool position	H-6006340
HST-150-300-FS	Mechanical fall arrester Fall protection for horizontal arm to prevent damage in case of a defect of the counterbalance system	H-6006315
HST-300-600-SWA**	Stops for swivel angle limitation (rotation axis) Two circle segments with rubber stops for the limitation of the swivel angle adjustable in steps of 30 degrees (min. 20° / max. 150°)	H-6006320
HST-FA	Retainer for tablet (remote display) Adjustable retainer for the remote display HMI 7" incl. assembly kit; Remote display only in conjunction with MultiPro 3G (BT module) usable	H-6006005

* No optional accessories are required for normal operation.

** Standard for the HST-300-XY version of the handling stand.

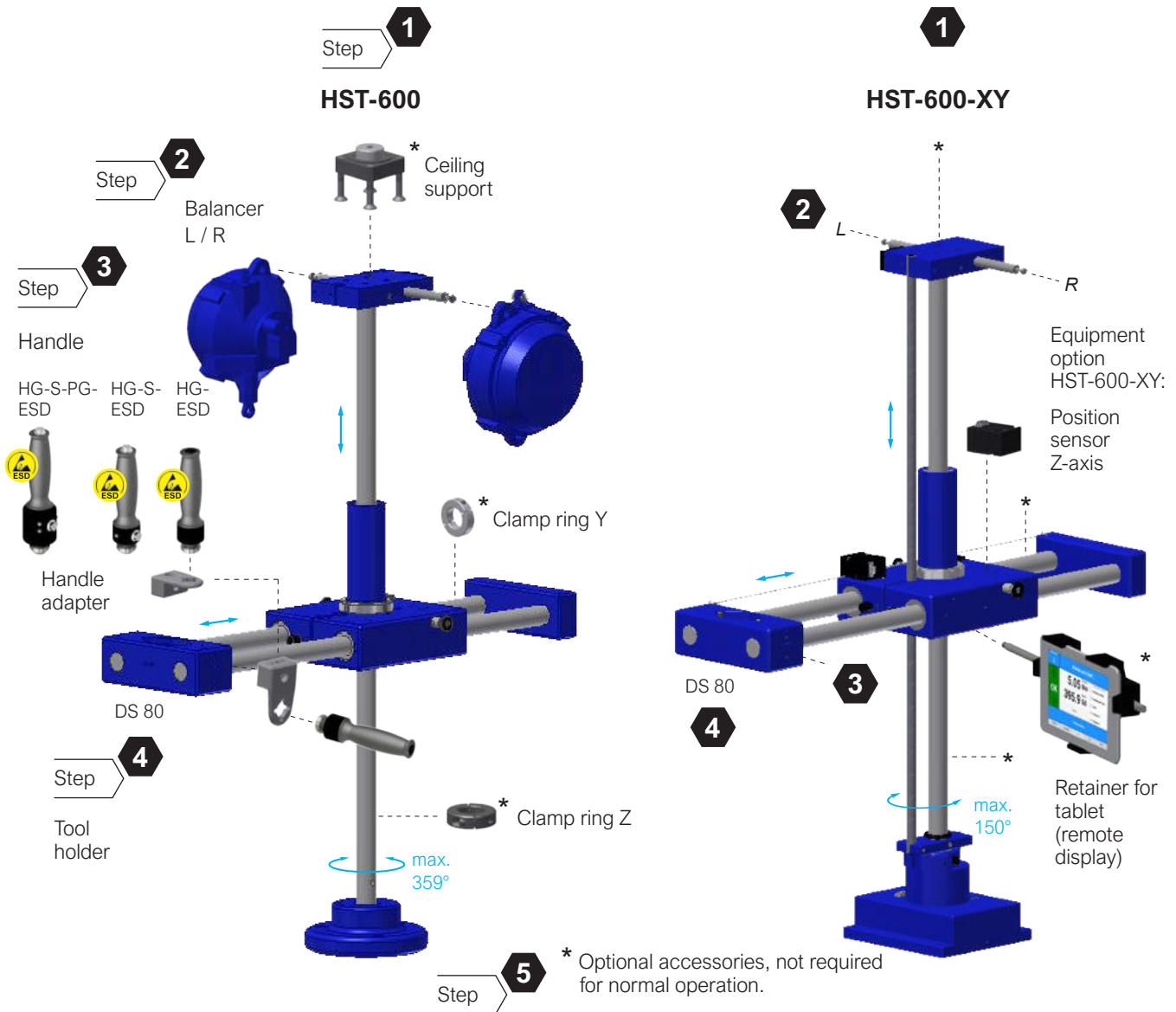
HST-600

Precise, reaction-free and extremely light handling in the entire workspace.

Absorption of all reaction forces and compensation of **torques up to 600 Nm**.

Optimal smooth-running weight compensation with a maximum **tool weight of 40 kg**.

Extensive range of equipment options for the models **HST-600** (without sensor) and **HST-600-XY** (with integrated position monitoring) available.



Use the following steps to assemble your handling stand and select the optimal components from the HST-600 series for your application.

Step 1 Page 21

Choose between the variant HST-600 and HST-600-XY

Step 2 Page 22

Choose a balancer for the weight compensation

Step 3 Page 23

Choose a handle

Step 4 Page 24

Choose a tool holder

Step 5 Page 24

Add optional accessories if necessary

Step 1

Variant of the handling stand (Size HST-600)

			HST-600	HST-600-XY
Absolute XY position sensor			--	✓
Position controller (PoSys) integrated in the stand			--	✓
Vertical stroke (Z)	[mm]		750	750
Horizontal stroke (Y)	[mm]		550	550
Swivel angle	[°]	max.	359	150
Reaction torque	[Nm]	up to max.	600	600
Tool weight	[kg]	max.	40	40
Height of vertical stand	[mm]		1320	1390
Length of horizontal arm (without tool holder)	[mm]		1050	1050
Weight horizontal arm	[kg]		45	45
Weight handling stand	[kg]		90	90
Article number			H-6002600	see Page 22

HST-600 | HST-600-XY – Robust designed handling stand

Pedestal with mounting holes, vertical stand with precision shaft, horizontal arm with precision double shaft as well as guides with smooth-running industrial bearings. Construction to accommodate torsion forces with fixing points for balancer and cable, prepared for the mounting of tool holder and handle.

HST-600-XY – Position monitoring of assembly tool

Fixed sequences have to be observed by a lot of applications of the hand-guided and the semi-automated assembly. Equipped with an XY sensor system (Z sensor optional) and with an position controller (PoSys) integrated in the pedestal, the HST-600-XY extends the functionality of your tightening system. The position electronic monitors in conjunction with a higher-level control system that the required sequence is observed.

No screw will be forgotten – even complex tightening sequences can be specified and monitored. Or you select the corresponding sequence program on your DSM control system via the screw position.

Other features:

- Absolute XY position measurement – in the rotation axis and in the horizontal arm
- Position input via teach-in, storage up to 200 positions
- Position monitoring
- Reporting of the stored positions „Pos reached“
- Direct output mode as „XY position“
- DSM software for programming and configuration of the positioning controller
- USB interface for connection with the DSM application software, incl. USB cable
- System bus interface for communication with DSM control system, for power supply via control system or plug-in power supply unit
- TCP/IP interface for communication with the DSM application software
- Optional Profibus interface, Profinet interface or EtherCAT interface for connection to a higher-level control system



Equipment option for handling stand HST-600-XY

Type		Article number
HST-150-300-600-Zsens	Position sensor Z-axis, incl. Y-connection cable	H-6006014

HST-600-XY equipped with position controller PoSys | Executions

Type		Article number
HST-600-XY-PB	Handling stand with XY sensors and integrated PoSys with Profibus interface	H-6002605
HST-600-XY-PN	Handling stand with XY sensors and integrated PoSys with Profinet interface	H-6002604
HST-600-XY-EC	Handling stand with XY sensors and integrated PoSys with EtherCAT interface	H-6002603

Equipment option

Type	Article number
Plug-in power supply unit AC 230 V / 50 Hz DC 24 V / 1 A (for use without DSM control system)	DSM-600611

System bus accessories

Type	Article number
System bus cable 2 m	MS-1003002
System bus cable 5 m	MS-1003005
System bus terminating resistor	MS-1003030
Y-piece for system bus connection	MS-1003046



Take tool weight and the weight of the horizontal arm into account when choosing the balancer.

Handling balancer set for handling stand HST-600 | HST-600-XY

Type	Quantity	Ideal for DSM nutrunner	Weight compensation, load capacity adjustable	Article number
HBA-30---40-kg	2 pcs.	DS 80	from 30 kg up to 40 kg	H-6008050

Step **3**

Ergonomically formed handles for precise guidance of the tool (nutrunner). Versatile mounting possibilities via handle adapter. Execution with start button for the direct forwarding of the start signal to the control system. Variant with rotary switch for switching between the preselected sequence programme and an alternative sequence.

Handle

Type		Article number
HG-ESD	Standard handle in ESD-compliant design	H-6007820
HG-S-ESD	Handle with start button (double) in ESD-compliant design	H-6007825
HG-S-PG-ESD	Handle with start button (double) and programme switchover in ESD-compliant design	H-6007830

Adapter for the vertical and for the horizontal assembly of the handle. The installation can be made on the right as well as on the left side of the tool holder of the handling stand.

Handle adapter for the HST-600 series

Type		Article number
HG-A-H150-300-600	Handle adapter kit HST-150 / HST-300 / HST-600	H-6007885

Choose the appropriate cable depending on the use of the handle.

If you are using a nutrunner of the DS 80 series the connection to the DSM control is made via the bus line of the DS nutrunner – the handle cable is plugged into the SB socket at the nutrunner. The cable is available in two different lengths suitable for the respective assembly situation.

Alternatively, the handle can be connected directly with the control system or with a higher-level control system. Corresponding cables for this can be found in the table below.

Handle cable for the HST-600 series

Type	Connection	Cable length	Article number
HG-K-DS57-80-160	from HG-S-ESD to DS 57 / DS 80	160 mm	H-6007958
HG-K-DS57-80-300	from HG-S-ESD to DS 57 / DS 80	300 mm	H-6007959
HG-K-DS57-80-500	from HG-S-ESD to DS 57 / DS 80	500 mm	H-6007960
HG-K-24V-4.XX	from HG-S-ESD to MultiBasic / MultiClassic / MultiPro	5 m	H-6007905
HG-K-24V-5.XX	from HG-S-ESD to MultiPro 3G	5 m	H-6007910
HG-K-24-oK	from HG-S-ESD to ... (open cable ends)	5 m	H-6007915
HGPG-K-24-oK	from HG-S-PG-ESD to ... (open cable ends)	2 m	H-6007720
HGPG-K-DS57-80-160	from HG-S-PG-ESD to DS 57 / DS 80	160 mm	H-6007755
HGPG-K-DS57-80-300	from HG-S-PG-ESD to DS 57 / DS 80	300 mm	H-6007756
HGPG-K-DS57-80-500	from HG-S-PG-ESD to DS 57 / DS 80	500 mm	H-6007757

Step **4**

The tool / nutrunner is attached to the handling stand with a suitable holder. Tool holders adapted to the size of the DSM nutrunners that can be used can be selected here. Adaptation of third-party products is made with a customised solution on request.

Handling tool holder for the HST-600 series

Type
Tool holder for DS 80 built-in nutrunners, permanently attached to the HST-600

Step **5**

Accessories for individual adaptation of the handling stand for your application.

Optional accessories* Handling stand HST-600

Type		Article number
HST-300-600-DA	Ceiling support Additional fixing of the handling stand via a pivoted support designed to improve the load carrying capacity	H-6006310
HST-300-KL-Z-600-KL-YZ	Clamp ring for Y-axis Variable positionable limiter of the horizontal stroke for the fast reaching of the tool position	H-6006340
HST-300-KL-Z-600-KL-YZ	Clamp ring for Z-axis Variable positionable limiter of the vertical stroke for the fast reaching of the tool position	H-6006340
HST-300-600-SWA**	Stops for swivel angle limitation (rotation axis) Two circle segments with rubber stops for the limitation of the swivel angle adjustable in steps of 30 degrees (min. 20° / max. 150°)	H-6006320
HST-FA	Retainer for tablet (remote display) Adjustable retainer for the remote display HMI 7" incl. assembly kit; Remote display only in conjunction with MultiPro 3G (BT module) usable	H-6006005

* No optional accessories are required for normal operation.

** Standard for the HST-600-XY version of the handling stand.

Position controller PoSys

Positioning electronics integrated in the pedestal of the **HST** (Fig.) as well as in the bracket of the **HSA**.

The position of the coordinates is entered using the teach-in procedure, whereby the corresponding position is approached with the handling system and stored in the position electronics with the PoSys software or via field bus.

The respective position is selected either via the system bus or from a PLC via field bus.

When the operator moves to the preselected position the PoSys positioning system reports this back via the system bus / field bus. The higher-level control system (DSM control system / PLC) can start the further processes.

The interaction of PoSys and the control system / PLC checks whether a defined operating sequence is maintained.

