Notified Body 1777 - CPR

CERTIFICATE OF CONSTANCY OF PERFORMANCE
1777 - CPR - 19.02

In compliance with Regulation (EU) No. 305/2011 of the European Parliament and of the Council of 9 March 2011 (the Construction Products Regulation or CPR), this certificate applies to the construction product

Rigid Connection Devices

with trade name

DAHT STU

temporary (dynamic) connection devices, to use in buildings and civil engineering works where requirements on individual devices are critical,

placed on the market under the name or trade mark of

DAHT Srl

C.da Alezza zona PIP – 74012 Crispiano (TA) – Italy

and produced in the manufacturing plant

DAHT Srl – C.da Alezza zona PIP – 74012 Crispiano (TA) – Italy.

This certificate attests that all provisions concerning the assessment and verification of constancy of performance described in Annex ZA of the standard

EN 15129:2009

under AVCP System 1 for the performance set out in this certificate are applied and that the factory production control conducted by the manufacturer is assessed to ensure the

constancy of performance of the construction product.

This certificate was first issued on 4 June 2019 and will remain valid as long as neither the harmonised standard, the construction product, the AVCP methods nor the manufacturing conditions in the plant are modified significantly, unless suspended or withdrawn by the notified product certification body.

The present Certificate cancels and replaces the previous revision no. 0 dated 4 June 2019.

Milan, 23 April 2025

Revision no. 1

Prof. Ing. Virginio Quaglini
Head of Certification Body

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Annex to Certificate of Constancy of Performance
no. 1777 – CPR – 19.02

Rigid Connection Devices

with trade name

DAHT STU

product families

DAHT STU product families comprise rigid connection devices that provide for an output force in either tension or compression that complies with the design displacement requirements when the activation velocity is exceeded. The devices are manufactured from ferrous materials and the active surface of the piston rod is hard chromium plated. The devices are classified as Temporary Connection Devices (also referred to as Shock Transmission Units) in accordance with Table 1 of hEN 15129:2009.

DAHT STU devices are presented in the product families described below.

DAHT STU with accumulator

Description of the product

DAHT STU with accumulator is a rigid connection device that provides for an output force in either tension or compression that complies with the design displacement requirements when the activation velocity is exceeded. The device is manufactured from ferrous materials and the active surface of the piston rod is hard chromium plated. The device is classified as a Temporary Connection Device (also referred to as Shock Transmission Unit) in accordance with Table 1 of hEN 15129:2009.

The device is equipped with a hydraulic accumulator.

The active surfaces are in accordance with clause 5.3.2.3 of hEN 15129:2009.[1]

The viscous fluid is in accordance with clause 5.3.2.4 of hEN 15129:2009.[1]

The temperature range is from -40° C to +70° C as per test report no. 2015/0539.

[1] appropriate documents reporting the identification characteristics of the fluid, active surfaces and outsourced manufacturing processes are deposited at the Notified Body involved in the attestation of constancy of performance procedure.

The intended use is in buildings and civil engineering works.

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Performance characteristics

DAHT STU with accumulator devices meet the following requirements in accordance with hEN 15129:2009:

- pressure test, clause 5.3.4.2
- low velocity test, clause 5.3.4.3
- seal wear test, clause 5.3.4.4
- impulsive load test, clause 5.3.4.5
- overload test, for strength to damage and/or leakage, clause 5.3.4.6
- cyclic load test, for a duration period of 15 seconds, clause 5.3.4.7

Type, identification and use

DAHT STU with accumulator product types are evaluated on the basis of the results reported below

DAHT STU 625±65		
load capacity 625 kN	*stroke ±65 mm*	
Essential characteristics	*Design value*	*Unit*
Resistance to seismic loads	625	kN
Rotation capability	±0.052	rad
Horizontal distortion capability	±65	mm
Durability	Conforming	==

According to Test Report no. 2015/0539

DAHT STU 1000±100		
load capacity 1000 kN	*stroke ±100 mm*	
Essential characteristics	*Design value*	*Unit*
Resistance to seismic loads	1000	kN
Rotation capability	±0.052	rad
Horizontal distortion capability	±100	mm
Durability	Conforming	==

According to Test Report no. 2015/0540

DAHT STU 1500±155		
load capacity 1500 kN	*stroke ±155 mm*	
Essential characteristics	*Design value*	*Unit*
Resistance to seismic loads	1500	kN
Rotation capability	±0.052	rad
Horizontal distortion capability	±155	mm
Durability	Conforming	==

According to Test Report no. 2015/0541

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DAHT STU 170±90		
load capacity 170 kN	*stroke ±90 mm*	
Essential characteristics	*Design value*	*Unit*
Resistance to seismic loads	170	kN
Rotation capability	±0.300	rad
Horizontal distortion capability	±90	mm
Durability	Conforming	==

According to Test Report no. 2018/0681

DAHT STU with accumulator products types and sizes covered by the present Certificate of Constancy of Performance are manufactured in accordance with the same design and with the same parametric technical solutions.

The used materials are the same for all types and sizes.

The dimensions of the products covered by the present Certificate of Constancy of Performance can vary in the dimensional range defined below in accordance with clause 5.3.4.1 of hEN 15129.

Load Capacity	*Maximum Stroke*	*Test Report*
136 to 204 kN	Up to ±108 mm	2018/0681
500 to 750 kN	Up to ±78 mm	2015/0539
800 to 1200 kN	Up to ±120 mm	2015/0540
1200 to 1800 kN	Up to ±186 mm	2015/0541

DAHT STU without accumulator

Description of the product

DAHT STU without accumulator is a rigid connection device that provides for an output force in either tension or compression that complies with the design displacement requirements when the activation velocity is exceeded. The device is manufactured from ferrous materials and the active surface of the piston rod is hard chromium plated. The device is classified as a Temporary Connection Device (also referred to as Shock Transmission Unit) in accordance with Table 1 of hEN 15129:2009.

The active surfaces are in accordance with clause 5.3.2.3 of hEN 15129:2009.[1]

The viscous fluid is in accordance with clause 5.3.2.4 of hEN 15129:2009.[1]

The temperature range is from -40° C to +50° C as per test report no. 2025/0540.

[1] appropriate documents reporting the identification characteristics of the fluid, active surfaces and outsourced manufacturing processes are deposited at the Notified Body involved in the attestation of constancy of performance procedure.

The intended use is in buildings and civil engineering works.

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Performance characteristics

DAHT STU without accumulator devices meet the following requirements in accordance with hEN 15129:2009:

- pressure test, clause 5.3.4.2
- low velocity test, clause 5.3.4.3
- seal wear test, clause 5.3.4.4
- impulsive load test, clause 5.3.4.5
- overload test, for strength to damage and/or leakage, clause 5.3.4.6
- cyclic load test, for a duration period of 15 seconds, clause 5.3.4.7

Type, identification and use

DAHT STU without accumulator product types are evaluated on the basis of the results reported below.

DAHT STU 100±42 *load capacity 100 kN* *stroke ±42 mm*		
Essential characteristics	*Design value*	*Unit*
Resistance to seismic loads	100	kN
Rotation capability	±0.035	rad
Horizontal distortion capability	*±42*	mm
Durability	Conforming	==

According to Test Report no. 2026/0176

DAHT STU 210±50 *load capacity 210 kN* *stroke ±50 mm*		
Essential characteristics	*Design value*	*Unit*
Resistance to seismic loads	210	kN
Rotation capability	±0.052	rad
Horizontal distortion capability	±50	mm
Durability	Conforming	==

According to Test Report no. 2021/3272

DAHT STU 460±140 *load capacity 460 kN* *stroke ±140 mm*		
Essential characteristics	*Design value*	*Unit*
Resistance to seismic loads	460	kN
Rotation capability	±0.035	rad
Horizontal distortion capability	±140	mm
Durability	Conforming	==

According to Test Report no. 2023/1014

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DAHT STU 625±50		
load capacity 625 kN	*stroke ±50 mm*	
Essential characteristics	*Design value*	*Unit*
Resistance to seismic loads	625	kN
Rotation capability	±0.052	rad
Horizontal distortion capability	±50	mm
Durability	Conforming	==

According to Test Report no. 2021/3273

DAHT STU 900±60		
load capacity 900 kN	*stroke ±60 mm*	
Essential characteristics	*Design value*	*Unit*
Resistance to seismic loads	900	kN
Rotation capability	±0.035	rad
Horizontal distortion capability	±60	mm
Durability	Conforming	==

According to Test Report no. 2024/0779

DAHT STU 1000±220		
load capacity 1000 kN	*stroke ±220mm*	
Essential characteristics	*Design value*	*Unit*
Resistance to seismic loads	1000	kN
Rotation capability	±0.035	rad
Horizontal distortion capability	±220	mm
Durability	Conforming	==

According to Test Report no. 2026/0917

DAHT STU 3500±80		
load capacity 3500 kN	*stroke ±80 mm*	
Essential characteristics	*Design value*	*Unit*
Resistance to seismic loads	3500	kN
Rotation capability	±0.035	rad
Horizontal distortion capability	±80	mm
Durability	Conforming	==

According to Test Report no. 2023/4111

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DAHT STU without accumulator products types and sizes covered by the present Certificate of Constancy of Performance are manufactured in accordance with the same design and with the same parametric technical solutions.

The used materials are the same for all types and sizes.

The dimensions of the products covered by the present Certificate of Constancy of Performance can vary in the dimensional range defined below in accordance with clause 5.3.4.1 of hEN 15129.

Load Capacity	*Maximum Stroke*	*Test Report*
80 to 120 kN	Up to ± 50.4 mm	2026/0176
168 to 252 kN	Up to ±60 mm	2021/3272
368 to 552 kN	Up to ±168 mm	2023/1014
500 to 750 kN	Up to ±60 mm	2021/3273
720 to 1080 kN	Up to ±72 mm	2024/0779
800 to 1200 kN	Up to ± 264 mm	2026/0917
2800 to 4200 kN	Up to ±96 mm	2023/4111

DAHT STU OV with accumulator and overload relief system

Description of the product

DAHT STU OV with accumulator and overload relief system is a rigid connection device that provides for an output force in either tension or compression that complies with the design displacement requirements when the activation velocity is exceeded. The device is manufactured from ferrous materials and the active surface of the piston rod is hard chromium plated. The device is classified as a Temporary Connection Device (also referred to as Shock Transmission Unit) in accordance with Table 1 of hEN 15129:2009.

The device is equipped with a hydraulic accumulator and an overload relief system.

The active surfaces are in accordance with clause 5.3.2.3 of hEN 15129:2009.[1]

The viscous fluid is in accordance with clause 5.3.2.4 of hEN 15129:2009.[1]

The temperature range is from -25° C to +55° C as per test report no. 2023/1602.

[1] appropriate documents reporting the identification characteristics of the fluid, active surfaces and outsourced manufacturing processes are deposited at the Notified Body involved in the attestation of constancy of performance procedure.

The intended use is in buildings and civil engineering works.

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Performance characteristics

DAHT STU OV with accumulator and overload relief system devices meet the following requirements in accordance with hEN 15129:2009:

- pressure test, clause 5.3.4.2
- low velocity test, clause 5.3.4.3
- seal wear test, clause 5.3.4.4
- impulsive load test, clause 5.3.4.5
- overload test, for strength to damage and/or leakage, clause 5.3.4.6
- cyclic load test, for a duration period of 15 seconds, clause 5.3.4.7

Type, identification and use

DAHT STU OV with accumulator and overload relief system product types are evaluated on the basis of the results reported below.

DAHT STU OV 1900±400		
load capacity 1900 kN	*stroke ±400 mm*	
Essential characteristics	*Design value*	*Unit*
Resistance to seismic loads	1900	kN
Rotation capability	±0.035	rad
Horizontal distortion capability	± 400	mm
Durability	Conforming	==

According to Test Report no. 2025/2406

DAHT STU OV 2650±190		
load capacity 2650 kN	*stroke ±190 mm*	
Essential characteristics	*Design value*	*Unit*
Resistance to seismic loads	2650	kN
Rotation capability	±0.035	rad
Horizontal distortion capability	±190	mm
Durability	Conforming	==

According to Test Report no. 2023/1602

DAHT STU OV with accumulator and overload relief system products types and sizes covered by the present Certificate of Constancy of Performance are manufactured in accordance with the same design and with the same parametric technical solutions.

The used materials are the same for all types and sizes.

The dimensions of the products covered by the present Certificate of Constancy of Performance can vary in the dimensional range defined below in accordance with clause 5.3.4.1 of hEN 15129.

Load Capacity	*Maximum Stroke*	*Test Report*
1520 to 2280 kN	up to ± 400 mm	2025/2406
2120 to 3180 kN	Up to ±228 mm	2023/1602

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DAHT STU OV NOACC without accumulator and with overload relief system

Description of the product

DAHT STU OV NOACC without accumulator and with overload relief system is a rigid connection device that provides for an output force in either tension or compression that complies with the design displacement requirements when the activation velocity is exceeded. The device is manufactured from ferrous materials and the active surface of the piston rod is hard chromium plated. The device is classified as a Temporary Connection Device (also referred to as Shock Transmission Unit) in accordance with Table 1 of hEN 15129:2009.

The device is equipped with an overload relief system.

The active surfaces are in accordance with clause 5.3.2.3 of hEN 15129:2009.[1]

The viscous fluid is in accordance with clause 5.3.2.4 of hEN 15129:2009.[1]

The temperature range is from -25° C to +50° C as per test report 2024/2691.

[1] appropriate documents reporting the identification characteristics of the fluid, active surfaces and outsourced manufacturing processes are deposited at the Notified Body involved in the attestation of constancy of performance procedure.

The intended use is in buildings and civil engineering works.

Performance characteristics

DAHT STU OV NOACC without accumulator and with overload relief system devices meet the following requirements in accordance with hEN 15129:2009:

- pressure test, clause 5.3.4.2
- low velocity test, clause 5.3.4.3
- seal wear test, clause 5.3.4.4
- impulsive load test, clause 5.3.4.5
- overload test, for strength to damage and/or leakage, clause 5.3.4.6
- cyclic load test, for a duration period of 15 seconds, clause 5.3.4.7

Type, identification and use

DAHT STU OV NOACC without accumulator and with overload relief system product types are evaluated on the basis of the results reported below.

DAHT STU OV NOACC 240±60		
load capacity 240 kN	*stroke ±60 mm*	
Essential characteristics	*Design value*	*Unit*
Resistance to seismic loads	240	kN
Rotation capability	0.035	rad
Horizontal distortion capability	±60	mm
Durability	Conforming	==

According to Test Report no. 2024/2691

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DAHT STU OV NOACC 1600±110		
load capacity 1600 kN	*stroke ±110 mm*	
Essential characteristics	*Design value*	*Unit*
Resistance to seismic loads	1600	kN
Rotation capability	0.035	rad
Horizontal distortion capability	±110	mm
Durability	Conforming	==

According to Test Report no. 2024/2692

DAHT STU OV NOACC without accumulator and with overload relief system products types and sizes covered by the present Certificate of Constancy of Performance are manufactured in accordance with the same design and with the same parametric technical solutions.

The used materials are the same for all types and sizes.

The dimensions of the products covered by the present Certificate of Constancy of Performance can vary in the dimensional range defined below in accordance with clause 5.3.4.1 of hEN 15129.

Load Capacity	*Maximum Stroke*	*Test Report*
192 to 288 kN	up to ± 72 mm	2024/2691
1280 to 1920 kN	up to ± 132 mm	2024/2692

Milan, 2nd of April 2026

Prof. Ing. Virginio Quaglini
Head of Certification Body

The present Annex is only valid together with the Certificate of Constancy of Performance no. 1777 – CPR – 19.02 rev.1 dated 23 April 2025

The present Annex cancels and replaces the previous Annex rev. 8 dated 9 March 2026

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