



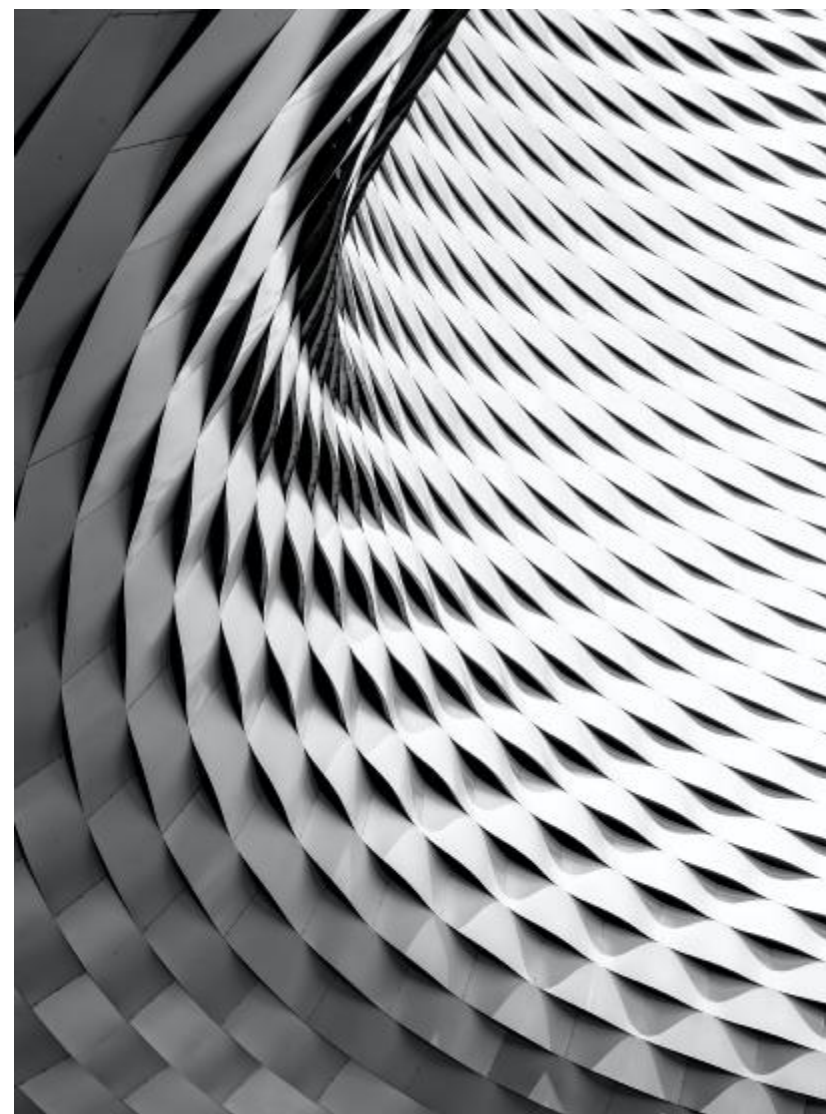
# Accuris EWB On-line přístup k zahraničním normám

Možnosti a novinky

Zdeněk Liška

TEMA informační služby

*12/06/2024*



## Trocha historie od IHS k ACCURIS

### 1959: IHS founded

IHS started as an information and analytics provider with a mission to provide insights that shape the business landscape.

### 1992: IHS launches CIS

The Construction Information Service started on microfilm, eventually evolving to an online tool providing regulations, standards, advice, and news to construction industries in the UK & Ireland.

### 2000: IHS launches the Standards Store

Evolving from microfilm to PDF, the retail store partners with over 400 SDOs, offering standards and technical info all in one online place.

### 2012: IHS acquires Goldfire

Goldfire began in 1990 as Invention Machine, which focused on structured innovation using AI-powered semantic research technology. Acquired in 2012, the tech behind Goldfire is now also used to power Engineering Workbench.

### 2016: IHS merges with Markit

IHS and Markit merged creating a global leader in information, analytics and solutions. Engineering & Product Design continued to serve users and respond to their needs through customer support and product development.

### 2021: IHS Markit launches Knowledge Workspace

Knowledge Workspace was launched to provide a new cutting edge platform for OHSIS, which includes occupational health and safety information from 500+ data sources to users in the UK & Ireland.

### 1990: IHS launches Parts Solutions

Parts Solutions began in 1990, developing into a robust set of technologies that were made stronger with acquisitions of PartMiner, PCN Alert, and Premier from 2007-2012.

### 1997: IHS acquires ESDU

ESDU originated as the Technical Department of the Royal Aeronautical Society (RAeS) in 1940, bringing together engineers from multiple industries to share and present their knowledge.

### 2005: IHS launches Haystack Gold

Developed starting in 1988 and merging with USA Information Systems Inc platform to become a standalone product in 2005, Haystack continues to develop and provide users access to critical US government and military data.

### 2015: IHS launches Knowledge Collections

Knowledge Collections hosts engineering and technical reference content, complementing the many standards collections we offer. Knowledge Collections is available through the Engineering Workbench platform.

### 2017: IHS Markit launches Engineering Workbench

Formerly Standards Expert, Engineering Workbench is a unique technology solution to a set of common engineering problems, powered by AI and standards management features like GetLink, Smart Compare, and Research Assistant.

### 2022: IHS Markit merges with S&P Global

Engineering & Product Design became Engineering Solutions, continuing to provide competitive technologies, standards and information, and world class customer service to all of our clients.



Od března 2023



**Welcome to Accuris.**



## Základní motto ACCURIS

Urychlení inovací, urychlení práce,  
zjednodušení nalezení správných informací



Víte to?

Průmyslové společnosti tráví 42 % svého času vyhledáváním a zpracováním informací pro řešení různých kritických technických problémů.

Inženýr/projektant se v průměru obrátí na 13 různých informačních zdrojů, aby našel odpověď, kterou hledá a učinil správné důvěryhodné rozhodnutí

Čas a rizika se sčítají.....





Víme, že :

60%

Inženýrských  
projektů selhává

\$2-35M

Jsou průměrné  
náklady na  
stažení z trhu.

30%

Z celkových  
výdajů na výzkum  
a vývoj je  
zbytečně  
vynaloženo na  
duplicitní výzkum  
a dříve  
provedenou práci

120% overdue

Projekty vývoje  
nových produktů  
mají v průměru  
120% zpoždění.





Myslíme si, že váš  
čas je cennější.....

ACCURIS hledá  
odpovědi, ne  
pouze data.....

# Accuris



## Největší soubor technický informací. Důvěryhodný partner



**50+**  
dlouholeté  
kombinované  
zkušenosti s  
umělou  
inteligencí..



**650 mil.**  
technických  
informací má ve  
svých databázích



**400+**  
světových vydavatelů  
norem



**650 tis.**  
Aktivních  
uživatelů.



**2.3 mil.**  
Průmyslových  
technických norem .



**60 let**  
Dlouholetý  
důvěryhodný  
partner  
na trhu

Appendix



# Portfolio Produkty a řešení

ACCURIS produkty se vzájemně doplňují

Ke každému zákazníkovi zaujímáme konzultativní přístup a nabízíme správná řešení ve správný čas.

## Engineering Workbench

normativně technické dokumenty, technické normy

## Parts Solutions

informace o elektrotechnických součástkách a prvcích

## ESDU

Ověřené inženýrské metody, zejména pro oblast letectví, automobilového průmyslu, ale i tlakových nádob

## Occupational Health & Safety Services

Informace týkající se ochrany zdravím při práci, zejména ve Velké Británii a Irsku

## Goldfire

Umožňuje sémantické neboli znalostní vyhledávání v přirozeném jazyce. Výrazně zlepší vyhledávání a zkracuje čas pro získání odpovídajících informací.

## Haystack

Databáze pro oblast logistiky inženýringu, nákupu, údržby a oprav

## Construction Information Services

Databáze pro stavební předpisy, normy, pokyny, smlouvy ve Spojeném království a Irsku

## Knowledge Collections

Komplexní databáze obsahující miliony technických dokumentů, patentů, časopisů, knih a dalších technických informací



## EWB - Engineering Workbench

V rámci této on-line databáze/platformy je umožněn přístup k třem typům technických informací v plném textu:

1. Normativně technické dokumenty
2. Technické informace – publikace, články, sborníky
3. Patentové informace

**2.3mil**  
Technických norem

**400+**  
Vydavatelů technických norem ve  
světě

**30%**  
Šetří čas při vyhledávání a nalezení  
správných informací



# EWB - Engineering Workbench drive STANDARDS EXPERT

The screenshot displays the Engineering Workbench (EWB) interface, version 2.66. The top navigation bar includes the EWB logo and the text "Engineering Workbench version 2.66". Below the navigation bar is a search bar with the placeholder text "What are you looking for?" and a search button. The search bar also shows "All Content" and "Search in: All Content".

The main content area is divided into several sections:

- Recent News:** "Engineering News & Analysis - Latest News Articles" and "Engineering News & Analysis - Latest News Articles".
- Recent Searches:** A list of search terms including "DCPS: Guidelines for Engineering", "ASME process piping guide", "mechanical stress", "iso 9001 certification", "nanotechnology", "power engineering", and "how to prevent corrosion".
- Recent Documents:** A list of documents including "ASME PROCESS PIPING GUIDE - US-2014026670 A1 METHOD O...", "Mechanical stress generated by n...", "Involvement of lignin and hormo...", "Mechanical stress directly suppo...", "Preliminary analysis of early-respo...", and "Involvement of lignin and hormo...".
- Recent Alerts:** A red box indicating "There are no alerts at this time."
- My Watch Lists:** A list of watch lists including "FY19Q4 Project 2", "med dev cc", "TetraW/EC", "TetraW/EC", "TetraW/IPC", "TetraW/IPC", and "Zimmer\_CC".
- Recent Projects:** A list of projects including "ASME", "Quality Management", "Mechanical Stress", and "Corrosion Mechanisms".
- Recent Bookmarks:** A list of bookmarks including "ASME PROCESS PIPING GUIDE", "ASME PROCESS PIPING GUIDE", "ASME PROCESS PIPING GUIDE...", "CSA CAN/CSA-ISO 9001:16 - Qu...", "ASTM MNL20 - Corrosion Tests a...", "ASME STP-PT-066 - DESIGN GU...", and "BSI BS IEC 62899-502-1 - Printe...".
- Standards:** Several tiles for standards, including "ASTM MNL20 - Corrosion Tests and Standards: Application and Interpretation - 2nd Edition", "ASME PROCESS PIPING GUIDE - Process Piping: The Complete Guide to ASME B31.3 - Third Edition", "CSA CAN/CSA-ISO 9001:16 - Quality management systems - Requirements - Fifth Edition; ERTA: May 2016", and "ASME STP-PT-066 - DESIGN GUIDELINE \$ FOR CORROSION, EROSION AND STEAM OXIDATION OF BOILER TUBES IN PULVERIZED COAL-FIRED BOILERS".

## EWB - Engineering Workbench dříve STANDARDS EXPERT

- sdružuje světové vydavatele norem do jednoho informačního systému
- jsou zde informace např.:
  - ASTM, ASME, API, ANSI, ISO, EN, IEEE, DIN, BSI, SAE
- systém lze využít ke správě a řízení zahraničních norem podle požadavků ISO 9000 pro akreditaci a certifikaci – automaticky budete informováni na zvolený email o všech změnách vybraných zahraničních norem



## EWB - Engineering Workbench dříve STANDARDS EXPERT

**PŘÍSTUP K CELÝM SKUPINÁM NOREM** od jednotlivých vydavatelů obsah je pevný a nelze ho měnit, zpravidla jsou k dispozici platné aktivní normy i všechna historická vydání norem, včetně zobrazení Smart compare/Redline – porovnání nového a starého vydání normy s jedním souborem s vyznačením změn

### **CUSTOM BLOCK**

balíčky norem s zvoleným počtem norem, který lze doplňovat v průběhu roku 10,20,30 50 a více norem pro vydavatele jako jsou ASTM, SAE, ASME, DIN, BSI, ISO

### **CUSTOM COLLECTION**

uživatelský výběr norem od různých vydavatelů, ve výběru jsou zvolené normy např. 3 normy ISO, 5 ASTM a 10 DIN



## EWB - Engineering Workbench dříve STANDARDS EXPERT

Přístup je na 1 rok a nově pro neomezený počet on-line uživatelů

Přístup není vázán na konkrétní počítač uživatele

Nově si uživatel může vybrat mezi základním modulem  
EWB BASIC nebo rozšířeným EWB PROFESIONAL



## EWB - Engineering Workbench BASIC-PROFESIONAL

Functionality	Capabilities	EWB	EWB Pro
<b>Smarter research – reduce the noise</b>	<b>Basic Search:</b> Search effectively by standards number, publisher, and title	✔	✔
	<b>Across Document Semantic Search:</b> Search more efficiently and receive better responses with natural language processing that understands previous search patterns	✔	✔
	<b>In-Document Semantic Search:</b> Search more efficiently within documents and receive better responses with natural language processing		✔
	<b>Research assistant:</b> Accelerate knowledge discovery and surface relevant information related to query search, powered by AI		✔
<b>More targeted connections</b>	<b>Basic Link Generation:</b> Generate shareable links to entire standards documents	✔	✔
	<b>Persistent Link Generation:</b> Create permanent links to full-text documents (i.e., links will not break even as standards are updated / URLs change, etc.)	✔	✔
	<b>Dynamic Linking:</b> Access standards referenced within other standards with the click of a button through embedded hyperlinks	✔	✔
	<b>Specific Section Link Generation:</b> Navigate to granular sections and share select snippets		✔
	<b>Historical and Active Standards Comparison Link Generation</b> ( <i>part of Smart Compare Premium</i> ): Generate links to select side-by-side views of historical and active standards		✔
<b>Critical changes only</b>	<b>Smart Compare:</b> Compare side-by-side with synced scroll and search across both docs with main changes (insertions, deletions, moved text) highlighted	✔	✔
	<b>Premium Smart Compare:</b> Filter out minor editorial changes and types of changes (e.g., additions / deletions), compare non-sequential standards, and annotate versions		✔
	<b>Platform alerts:</b> Track and receive notifications when standards change and new versions are released through the platform	✔	✔
	<b>Micro alerts:</b> Track and receive notifications when the most relevant sections of standards change		✔



# EWB - Engineering Workbench – ukázka normy plným textu

ASME B16.11-2021

## 5 MATERIAL

### 5.1 Standard Materials

Fittings shall be made of materials consisting of forgings, bar, seamless pipe, or seamless tubular products. These materials shall conform to the requirements for the WP seamless construction materials of ASTM Fitting Specifications [A234/A234M](#), [A403/A403M](#), [A420/A420M](#), [A815/A815M](#), or [B366](#), or ASTM Forging Specifications [A105/A105M](#), [A182/A182M](#), [A350/A350M](#), [B462](#), or [B564](#). Tees, elbows, and crosses shall not be machined directly from bar stock.

## 6 DIMENSIONS

### 6.1 General

Unless otherwise noted, the dimensions for socket-welding fittings given in [Table 6.1-1](#) (Tables [6.1-1C](#) and [6.1-2C](#)) and the dimensions without tolerances for threaded fittings given in [Tables 6.1-3](#) through [6.1-6](#) (Tables [6.1-3C](#) through [6.1-6C](#)) are nominal values and subject to the designated manufacturing tolerances.

### 6.2 Socket Fittings

#### 6.2.1 Body Wall Thickness.

The body wall thickness of socket-welding fittings shall be equal to or greater than the values, *G*, shown in [Table 6.1-1](#) ([Table 6.1-1C](#)).

### 6.3 Threaded Fittings

#### 6.3.1 Wall Thickness.

The body or end wall thickness of threaded fittings shall be equal to or greater than the minimum values, *G*, as shown in [Tables 6.1-3](#) through [Tables 6.1-3C](#) through [6.1-5C](#).

#### 6.3.2 Internal Threading.

All fittings with internal threads shall be threaded with American National Standard Taper Pipe Threads ([ASME B1.20.1](#)). Variations in threading shall be limited to one turn large or one turn small from the gaging notch when using working gages. The reference point for gaging is the starting

[ASME B1.20.1 - Pipe Threads, General Purpose \(Inch\)](#)  
Active • 11/15/2013 (R 2017) • ASME - ASME International  
This Standard covers dimensions and gaging of pipe threads of the following series: NPT NPSC NPTR NPSM NPSL

**Get Link**

Most recent revision  
 This specific version

Open to page:

**Get Link**

Pipe Threads ([ASME B1.20.1](#)), and the variation in threading shall be limited to one turn large or one turn small from the gage face of ring when using working gages. The reference point for gaging is the end of the thread, provided the chamfer is not smaller than the minor diameter of the external thread. When a chamfer on the external thread exceeds this limit, the reference point becomes the last thread scratch on the chamfer cone.

## EWB - Engineering Workbench – ukázka normy plném textu

The screenshot displays the Document Viewer interface for the AWS D1.1/D1.1M:2015 Structural Welding Code—Steel. The interface includes a top navigation bar with tabs for DOCUMENT, SUMMARY, DOCUMENT HISTORY, and RELATED DOCUMENTS. The main content area shows the document title, author information, and a large red rectangular area, likely representing a redacted section of the document. The document title is "AWS D1.1/D1.1M:2015 An American National Standard Structural Welding Code—Steel". The interface also features a search bar, zoom controls (100%), and a page indicator (1 / 648). A sidebar on the left contains navigation options such as Document Notes, Revision Group (2), Table of Contents, and Also Viewed. The right sidebar shows an Annotations section with the message "This document has not yet been annotated".

**Document Viewer**  
by Accuris

AWS D1.1/D1.1M - Structural Welding Code - Steel - 23rd Edition; 2nd printing

Close

DOCUMENT SUMMARY DOCUMENT HISTORY RELATED DOCUMENTS

AWS D1.1/D1.1M - Structural Wel...  
By American Welding Society

Document Notes **1** Add

Revision Group (2)

Table of Contents

Also Viewed

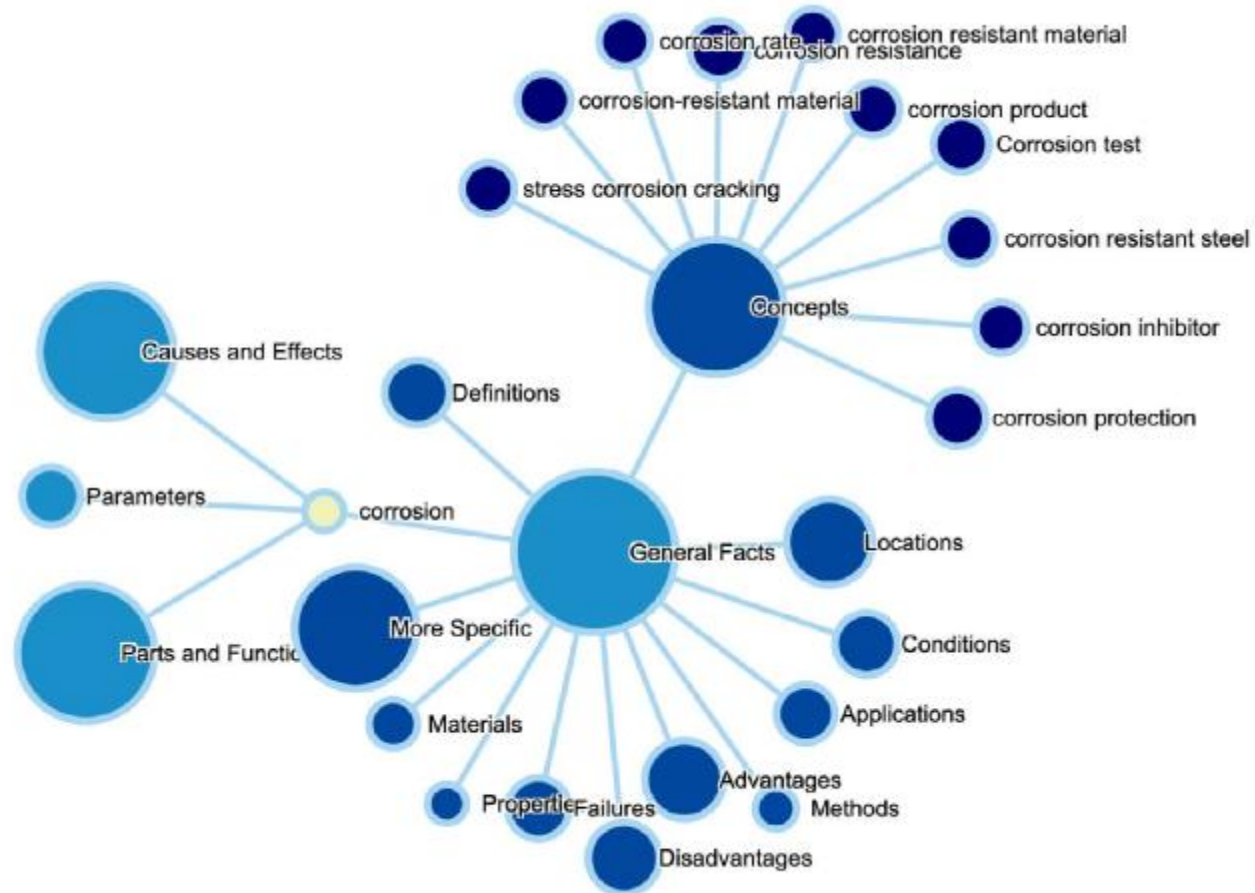
100% 1 / 648

AWS D1.1/D1.1M:2015  
An American National Standard

Structural  
Welding Code—  
Steel

Annotations  
This document has not yet been annotated.

## EWB - Engineering Workbench – Vyhledávací asistent



# EWB - Engineering Workbench

## platné vydání normy – historická vydání norem

U velkého počtu normalizačních institucí je v rámci on-line přístupu k dispozici poslední platné vydání normy a všechna historická vydání. Platí to u ASTM, ASME BPVC, ASME, API atd.

 **ASME B31.1-2022**  
Power Piping  
ASME Code for Pressure Piping, B31

**ASME B31.1-2022** ▶  
Power Piping

**STANDARD** by ASME International, 10/10/2022.

**LANGUAGES:** English

**HISTORICAL EDITIONS:** ASME B31.1-2020, ASME B31.1-2018, ASME B31.1-2016, ASME B31.1-2014, ASME B31.1-2012 and B31.3-2012 SET, ASME B31.1-2012, ASME B31.1-2010, ASME B31.1-2007, ASME B31.1-2004, ASME B31.1-2001

 **ASTM E8/E8M-24**  
Standard Test Methods for Tension Testing of Metallic Materials

**ASTM E8/E8M-24** ▶  
Standard Test Methods for Tension Testing of Metallic Materials

**STANDARD** by ASTM International, 01/01/2024.

**LANGUAGES:** English

**HISTORICAL EDITIONS:** ASTM E8/E8M-22, ASTM E8/E8M-21, ASTM E8/E8M-16ae1, ASTM E8/E8M-16a, ASTM E8/E8M-16, ASTM E8/E8M-15a, ASTM E8/E8M-15, ASTM E8/E8M-13a, ASTM E8/E8M-13, ASTM E8/E8M-11, ASTM E8/E8M-09, ASTM E8M-04, ASTM E8/E8M-08, ASTM E8-04, ASTM E8-03, ASTM E8M-03, ASTM E8-01e2, ASTM E8-01e1, ASTM E8-01, ASTM E8-00b, ASTM E8M-01e2, ASTM E8M-01e1, ASTM E8M-01, ASTM E8M-00b, ASTM E8M-00B, ASTM E8M-00a, ASTM E8-99

 **REDLINES**

## EWB - Engineering Workbench – Smart Compare porovnání vydání norem mezi sebou s vyznačením změn

Feature:	Basic	Premium
<b>Side-by-Side Comparison:</b> View 2 standards side by side, just like if you printed them out and compared manually. The older version will be on the left, the newer version will be on the right.	✓	✓
<b>Active and Previous Version Comparison:</b> Compare sequential document changes (i.e. 2021 to 2022).	✓	✓
<b>Sync Scroll:</b> Turn on or off sync scrolling to save the view that's most helpful to you. Match sections or scroll to a different area for context.	✓	✓
<b>Show Main Differences:</b> See types of changes highlighted in specific colors in the documents. Red for deleted. Green for inserted. Blue for moved. Yellow for changed.	✓	✓
<b>Page Navigation:</b> Advance pages forward and back.	✓	✓
<b>Jump to Page:</b> Enter a specific page number and go there.	✓	✓
<b>Rotate Pages:</b> Rotate to view horizontal or landscape.	✓	✓
<b>Search within Standards:</b> Keyword search and return results in both documents.	✓	✓
<b>Turn On/Off Main Difference Types:</b> Filter to see different types of changes (i.e. only show me deletions).		✓
<b>Select Specific (non-sequential) Versions to Compare:</b> Pick non-sequential documents to compare (i.e. 15 years apart).		✓
<b>Get Link to Compared Documents:</b> Create a hyperlink to this comparison document pair.		✓
<b>Get Link to Specific Sections:</b> Create a hyperlink to a specific change (i.e. the deletion on page 20).		✓
<b>Turn On/Off Editorial Changes:</b> Turn off editorial changes to "reduce the noise" of less important changes like punctuation and repeated header/footer edits.		✓
<b>Select Editorial Change Types to Display:</b> Pick which types of editorial changes you want to see.		✓
<b>Emphasize Changes:</b> Make changes stand out more from the page (an outline around the highlight and a visual flash).		✓



# EWB - Engineering Workbench – Smart Compare porovnání vydání norem mezi sebou s vyznačením změn

**Smart Compare** by Accuris

API RP 1175 - Pipeline Leak Detection—Program Management - SECOND EDITION (Apr 1, 2022)

Older: Jan 1, 2015 - Revised / 88 / 131

Newer: Apr 1, 2022 - Active / 77 / 86

**Changes**

Types of Changes [Show all](#)

Changed	Deleted	Inserted	Moved
25%	26%	42%	7%

Hide Editorial changes (914)

Details (605 of 3,220) Page

- Changed 87  
Also to NOTE These are also
- Changed 87  
alarm to alarms
- Changed 87  
— SA to — sensitive area
- Changed 88  
— National One Call (811) and state to —
- Changed 88  
— Federal regulations on LDP surveillance and release reporting, such as 49 CFR 195.2 (definitions), 195.50, 195.134, 195.412, 195.444, and 195.452... to — Applicable regulations

# EWB - Engineering Workbench – Smart Compare porovnání vydání norem mezi sebou s vyznačením změn

Smart Compare

ASME B16.5 - Pipe Flanges and Flanged Fittings NPS 1/2 Through NPS 24 Metric/Inch Standard (Jan 1, 2020)

Older: Nov 20, 2017 - Revised
38 / 254
80%
Sync Scroll
Newer: Jan 1, 2020 - Active
38 / 250

ASME B16.5-2017

Figure 9 Inside Contour for Use With Rectangular Backing Ring

**Welding Ends (Welding Neck Flanges)**  
 $D =$  nominal outside diameter of welding neck, mm  
 $E =$  nominal inside diameter of pipe (A - 20), mm  
 $F = 4 - 3.75 = 0.75$ , mm  
 $G =$  nominal wall thickness of pipe, mm  
 $H =$  minimum tolerance on outside diameter of pipe to ASTM A106, mm  
 $I = 0.75$ , mm  
 $J = 47.5\%$  of nominal wall (permitted by ASTM A106, etc.) (provided by user to correct for loss of diameter)  
 $K = 12$ , mm  
 $L =$  plus tolerance on diameter C, mm (see para. 7.3.1)

**GENERAL NOTES:**  
(1) Dimensions are in millimeters. For dimensions in inches, refer to Mandatory Appendix B, Figure B-16.  
(2) See paras. 6.7, 6.8, and 7.5 for details and tolerances.  
(3) See Figures 7 and 8 for welding end details of welding neck flanges.  
(4) For dimensions, see ASME B16.25.

NOTE: (1) 12-mm (0.4719-in.) min. use of 19-mm (0.75-in.) wide backing ring.

Figure 10 Inside Contour for Use With Taper Backing Ring

**Welding Ends (Welding Neck Flanges)**  
 $D =$  nominal outside diameter of welding neck, mm  
 $E =$  nominal inside diameter of pipe (A - 20), mm  
 $F = 4 - 3.75 = 0.75$ , mm  
 $G =$  nominal wall thickness of pipe, mm  
 $H =$  minimum tolerance on outside diameter of pipe to ASTM A106, mm  
 $I = 0.75$ , mm  
 $J = 47.5\%$  of nominal wall (permitted by ASTM A106, etc.) (provided by user to correct for loss of diameter)  
 $K = 6.0$ , mm  
 $L =$  plus tolerance on diameter C, mm (see para. 7.3.1)

**GENERAL NOTES:**  
(1) Dimensions are in millimeters. For dimensions in inches, refer to Mandatory Appendix B, Figure B-16.  
(2) See paras. 6.7, 6.8, and 7.5 for details and tolerances.  
(3) See Figures 7 and 8 for welding end details of welding neck flanges.  
(4) For dimensions, see ASME B16.25.

ASME B16.5-2020

Figure 9 Inside Contour for Use With Rectangular Backing Ring

**Welding Ends (Welding Neck Flanges)**  
(2) inch  
 $D =$  nominal outside diameter of welding neck, mm  
 $E =$  nominal inside diameter of pipe (A - 20), mm  
 $F = 4 - 3.75 = 0.75$ , mm  
 $G =$  nominal wall thickness of pipe, mm  
 $H =$  minimum tolerance on outside diameter of pipe to ASTM A106, mm  
 $I = 0.75$ , mm  
 $J = 47.5\%$  of nominal wall (permitted by ASTM A106, etc.) (provided by user to correct for loss of diameter)  
 $K = 3$ , mm  
 $L =$  plus tolerance on diameter C, mm (see para. 7.3.1)

**PLUS CIRCUMFERENCE NOTE:**  
 $D =$  nominal outside diameter of welding neck, mm  
 $E =$  nominal inside diameter of pipe (A - 20), mm  
 $F = 4 - 3.75 = 0.75$ , mm  
 $G =$  nominal wall thickness of pipe  
 $H =$  minimum tolerance on outside diameter of pipe to ASTM A106, mm  
 $I = 0.75$ , mm  
 $J = 47.5\%$  of nominal wall (permitted by ASTM A106, etc.) (provided by user to correct for loss of diameter)  
 $K =$  plus tolerance on diameter C, mm (see para. 7.3.1)

**GENERAL NOTES:**  
(2) See paras. 6.7, 6.8, and 7.5 for details and tolerances.  
(3) See Figures 7 and 8 for welding end details of welding neck flanges.  
(4) For dimensions, see ASME B16.25.

NOTE: (1) 3-mm (0.1181-in.) min. based on use of 19-mm (0.75-in.) wide backing ring.

Figure 10 Inside Contour for Use With Taper Backing Ring

**Welding Ends (Welding Neck Flanges)**  
(2) inch  
 $D =$  nominal outside diameter of welding neck, mm  
 $E =$  nominal inside diameter of pipe (A - 20), mm  
 $F = 4 - 3.75 = 0.75$ , mm  
 $G =$  nominal wall thickness of pipe, mm  
 $H =$  minimum tolerance on outside diameter of pipe to ASTM A106, mm  
 $I = 0.75$ , mm  
 $J = 47.5\%$  of nominal wall (permitted by ASTM A106, etc.) (provided by user to correct for loss of diameter)  
 $K = 6.0$ , mm  
 $L =$  plus tolerance on diameter C, mm (see para. 7.3.1)

**GENERAL NOTES:**  
(2) See paras. 6.7, 6.8, and 7.5 for details and tolerances.  
(3) See Figures 7 and 8 for welding end details of welding neck flanges.  
(4) For dimensions, see ASME B16.25.

Table of Contents

Changes

Types of Changes

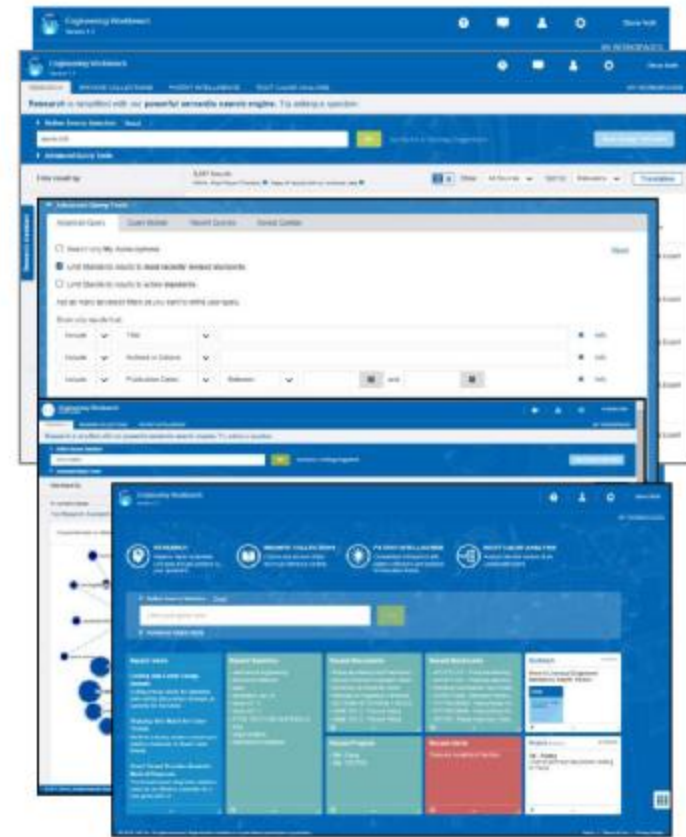
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Details (7,484) Page

<b>Changed</b>	<b>1</b>
B16.5-2017 to B16.5-2020	
<b>Changed</b>	<b>1</b>
B16.5-2013 to B16.5-2017	
<b>Changed</b>	<b>2</b>
B16.5-2017 to B16.5-2020	
<b>Changed</b>	<b>2</b>
B16.5-2013 to B16.5-2017	

## EWB - Engineering Workbench – shrnutí možností

1. Víceparametrické vyhledávání
2. Tisk dokumentů/norem
3. Uložení dokumentů/norem do PDF formátu pro off-line využití
4. Ukládání vyhledávacích postupů
5. Export výsledků vyhledávání do PDF nebo tabulek
6. Porovnání verzí norem s vyznačením změn Smart Compare/Redline – např. u norem ASME, ASME BPVC, ASTM, API
7. Watchlist – zasílání informací o změnám v platnosti norem



## EWB - Engineering Workbench – nové SDO

<b>SDO</b>	<b>Name</b>	<b>Industry/s</b>	<b>On SAIG subs platform</b>	<b>SDO direct subs channel</b>
<b>A3 RIA</b>	<b>Association for Advancing Automation (was RIA)</b>	<b>Automotive, A&amp;D, medical device, and other manufacturing. Makers of robotics.</b>	<b>Yes</b>	<b>No</b>
IFI /FASTNR	Industrial Fasteners Institute	Aerospace, Automotive, other industrial manufacturing	No	No
<b>ISTA</b>	<b>International Safe Transit Association</b>	<b>Multiple – Organizations designing packaging for ground transportation</b>	<b>Yes</b>	<b>For members</b>
NGA	National Glass Association	Manufacturing – Glass Architecture, Engineering, & Construction	No	unknown
<b>TEMA</b>	<b>Tubular Exchanger Manufacturers Association</b>	<b>Multiple. Used in industrial plants alongside ASME BPVC.</b>	<b>No</b>	<b>No</b>

## EWB - Engineering Workbench – nové SDO

<b>SDO</b>	<b>Name</b>	<b>Industry/s</b>	<b>On SAIG subs platform</b>	<b>SDO direct subs channel</b>
<b>PCI</b>	<b>Precast/Prestressed Concrete Institute</b>	<b>Architecture, Engineering, &amp; Construction</b>	<b>No</b>	<b>No</b>
<b>ISPE</b>	<b>International Society for Pharmaceutical Engineering</b>	<b>Life Sciences/Medical Device – Pharmaceutical manufacturing</b>	<b>No</b>	<b>Yes and includes AAMI</b>
CMAA (MHI)	Crane Manufacturers Assoc of America	Manufacturing & Material Handling	Yes	No
SA	Australien Standards	Architecture, Engineering, & Construction	No	No

EWB - Engineering Workbench

# Letectví, kosmonautika, letecká doprava

SAE - Aerospace Material Specifications (AMS)  
SAE - Aerospace Standards (AS) & Associated 3D Catalog  
AIA/NAS - Aerospace Industries Association  
AIAA - American Institute of Aeronautics & Astronautics  
AECMA - European Association of Aerospace Industries  
IATA – International Transport Association  
NASA - National Aeronautics and Space Administration  
EUROCAE - European Organization for Civil Aviation Equipment  
ICAO - International Civil Aviation Organization  
JAA - Joint Aviation Authority Aviation





EWB - Engineering Workbench

## Materiály, petrochemie, tlakové nádoby

ASTM - American Society for Testing Materials

ASME - Society of Mechanical Engineers

ASME - Boiler & Pressure Vessel Code

AWS - American Welding Society

HEI - Heat Exchange Institute

HI - Hydraulics Institute

MSS - Manufacturers Standardization

Society of the Valves & Fittings Industry

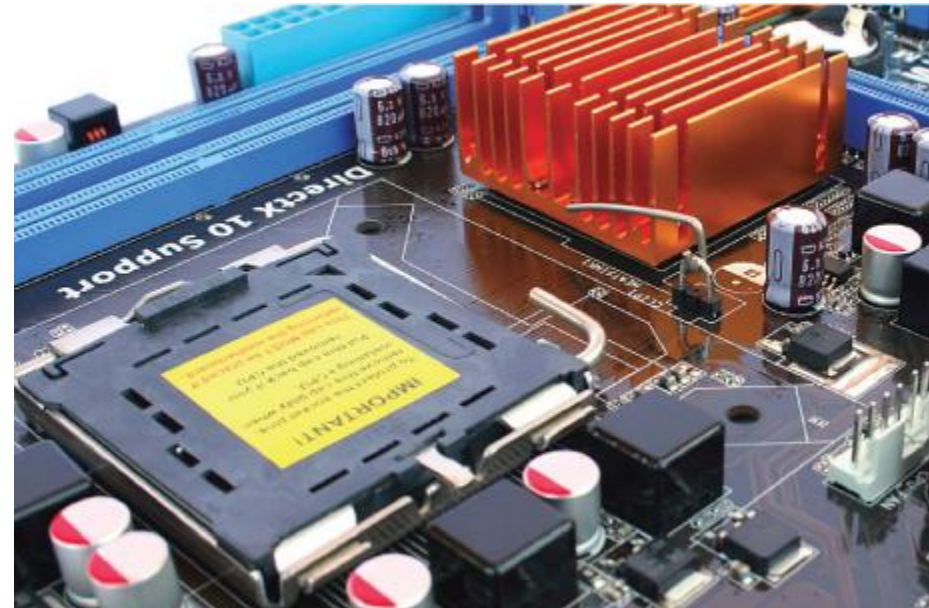
NFPA/Fluid - National Fluid Power Association



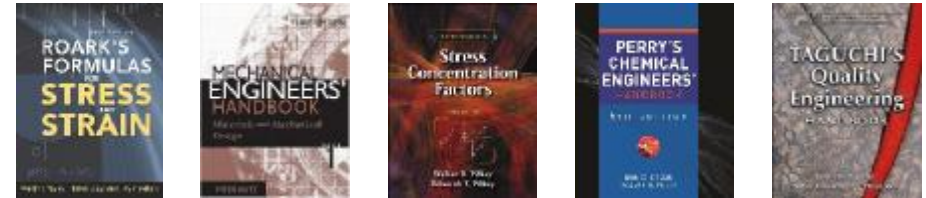
EWB - Engineering Workbench

# Elektronika, telekomunikace

ETSI - European Telecommunications Standards Institute  
IEC - International Electrotechnical Commission  
IEEE - Institute of Electrical & Electronics Engineers  
IPC - Association of Connecting Electronics Industries  
ITU - International Telecommunications Union  
NEMA - National Electrical Manufacturers Association  
TIA - Telecommunications Industry Association



EWB - Engineering Workbench  
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Děkuji za pozornost

**GSM: 420-603832334**

**Email: [info@tema-ihs.cz](mailto:info@tema-ihs.cz)**