

## 3-PIECE BALLVALVES SERIES 20

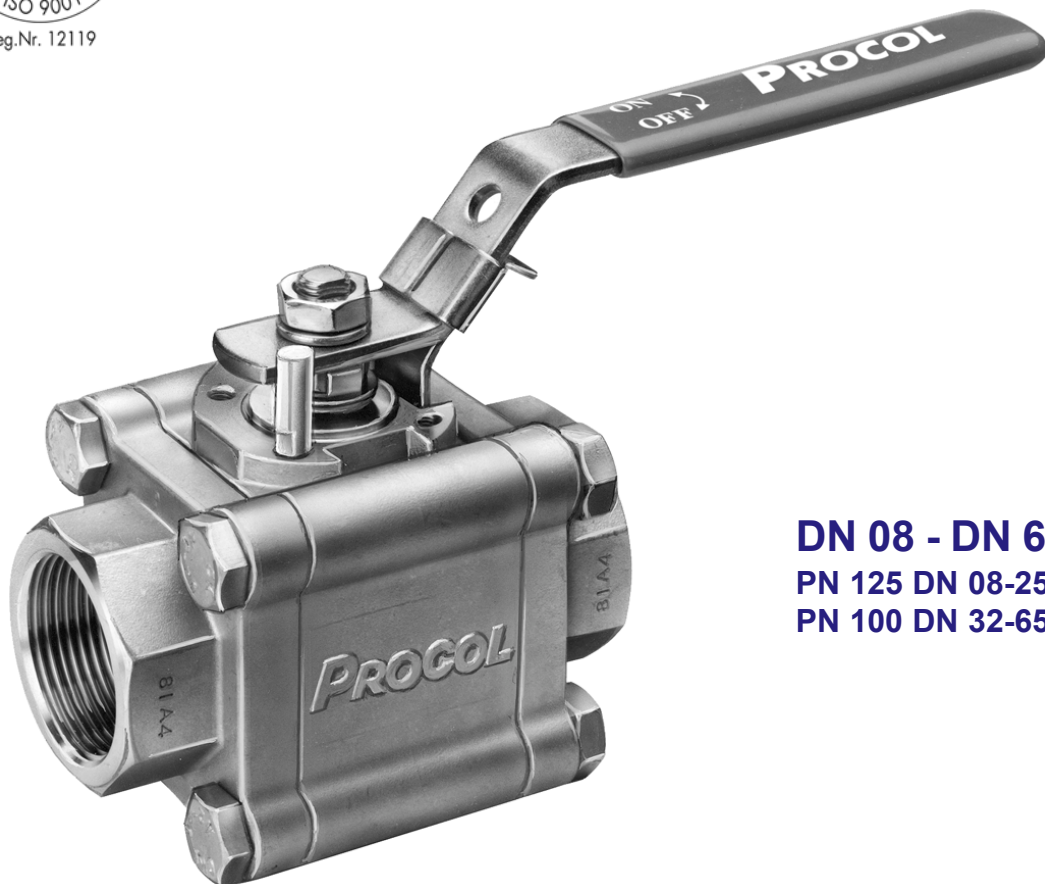
Full bore

ISO-mounting pad

Reduced bore

Stainless steel A351CF8M / Carbon steel A216WCB

**FIRESAFE certified acc. to BS 6755**



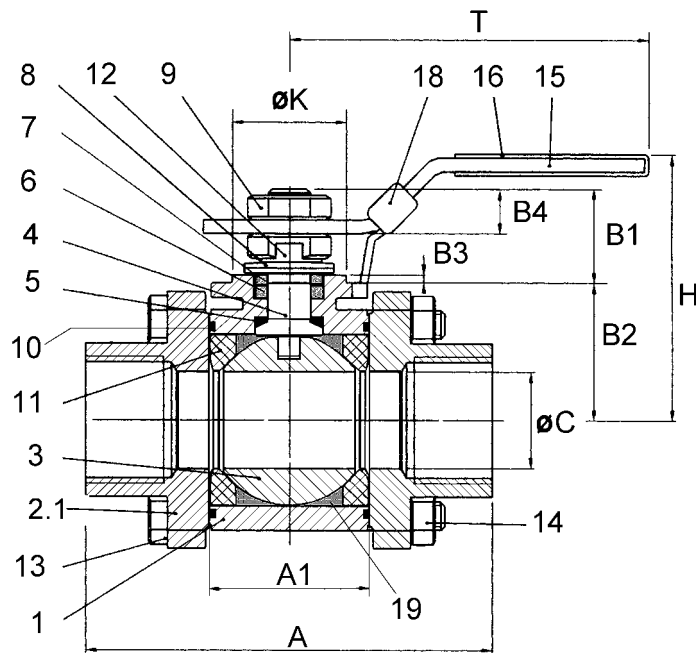
**DN 08 - DN 65**  
**PN 125 DN 08-25**  
**PN 100 DN 32-65**

**Cee Vee Ltd.**

Tel 01453 821666

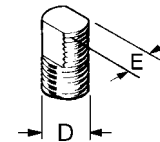
Fax . 01453 822298

[www.cee-vee.co.uk](http://www.cee-vee.co.uk)

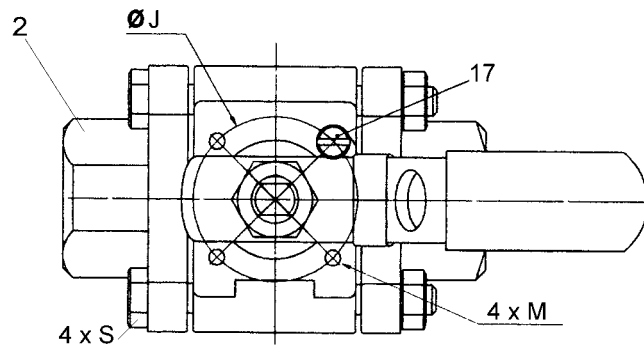


## Typ A20

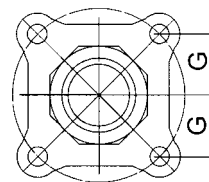
anti-static



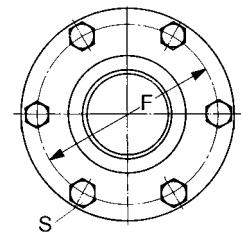
Stem



encapsulated bolts  
DN 8 - DN 40 full bore



DN15-50 red. bore  
DN 8-40 full bore



DN 65 red. bore  
DN 50 full bore

		<b>Stainless steel</b>	<b>Carbon steel</b>
1	Body	A351CF8M	A216WCB
2	Screwed end	A351CF8M	A216WCB
2.1	BW end	A351CF3M	A216WCB
3	Ball	316	316
4	Stem	316	316
5	Stem seal	PTFE	PTFE
6	Stem packing	PTFE/carbon	PTFE/carbon
7	Stem seal follower	304	304
8	Belleville washer	301	301
9	Stem nut	304	304
10	Bodyseal	RPTFE	RPTFE
11	Seat	RPTFE (standard)	RPTFE (standard)
12	Lock saddle	304	304
13	Bolt	304	304
14	Bolt nut	304	304
15	Handle	304	304
16	Handle sleeve	Vinyl	Vinyl
17	Stop pin	304	304
18	Locking device	304	304
19	Body cavity fillers (Option)	PTFE	PTFE

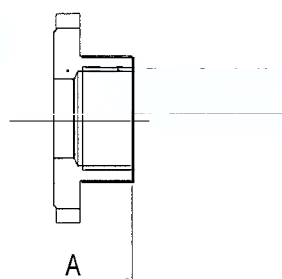
## Reduced bore

04/01

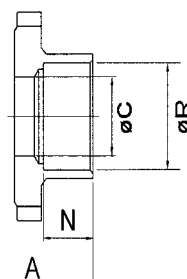
DN	A	A1	B1	B2	B3	B4	ØC	ØD UNF	E	ØF	G	H
15-1/2"	65	20,6	7	29,8	0,5	5,5	10	9,5-3/8"	6,5	-	15,9	64
20-3/4"	75	24,6	16,6	29	2	7,4	15	9,5-3/8"	6,5	-	19,1	70
25-1"	90	31,7	18,5	33	2	8,5	20	9,5-3/8"	6,5	-	22,1	77
32-11/4"	110	41,3	24,7	36	2	11,7	25	11,1-7/16"	8	-	25,1	83
40-11/2"	115	48,4	24,4	40	2	10	32	11,1-7/16"	8	-	28,6	88
50-2"	130	56,3	29,5	47,5	2	11,6	38	14,3-9/16"	9,6	-	33,3	105
65-21/2"	145	71,5	26,5	69,5	1,5	12,5	50	14,3-9/16"	9,7	114	-	122

DN	ØJ	ØK	M	N	ØP	ØP1 SCH40	ØP1 ISO	ØR	S	T	ISO 5211	wght. kg
15-1/2"	36	25	M5	10	21,7	15,76	18,1	21,7	M6	134		0,7
20-3/4"	36	25	M5	10	27,2	20,96	23,7	27,3	M6	134	F03	0,9
25-1"	36	25	M5	13	34	26,64	29,7	34,1	M8	134	F03	1,4
32-11/4"	42	30	M5	13	42,7	35,08	38,4	42,8	M8	170	F04	2,1
40-11/2"	42	30	M5	13	48,6	40,94	44,3	48,7	M10	170	F04	2,8
50-2"	50	35	M6	13	60,5	52,51	56,3	61	M10	207	F05	4
65-21/2"	50	35	M6	16	76,1	65,70	71,5	77	M12	207	F05	5,7

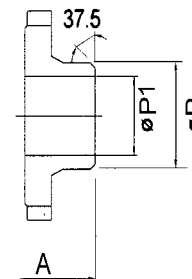
Screwed end BSPP, NPT



SW = socket weld end



BW = Butt weld end

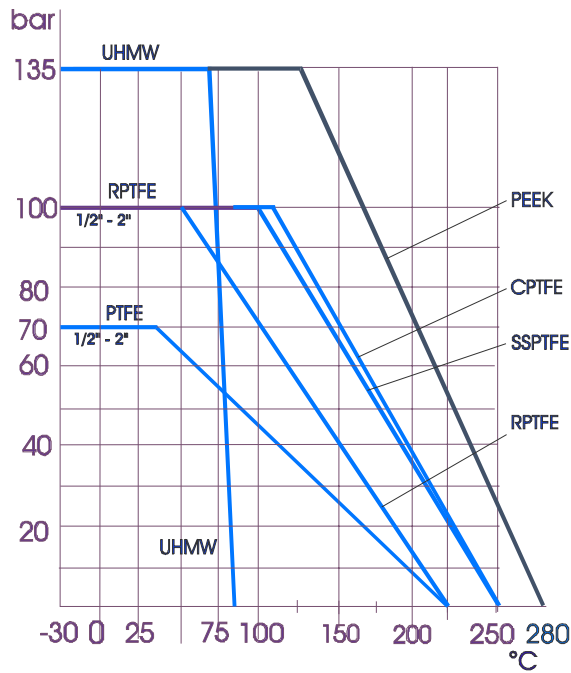


## Full bore

DN	A	A1	B1	B2	B3	B4	ØC	ØD UNF	E	ØF	G	H
8-1/4"	65	20,6	7	29,8	0,5	5,5	10	9,5-3/8"	6,5	-	15,9	64
10-3/8"	65	20,6	7	29,8	0,5	5,5	10	9,5-3/8"	6,5	-	15,9	64
15-1/2"	75	24,6	16,6	29	2	7,4	15	9,5-3/8"	6,5	-	19,1	70
20-3/4"	90	31,7	18,5	33	2	8,5	20	9,5-3/8"	6,5	-	22,1	77
25-1"	110	41,3	24,7	36	2	11,7	25	11,1-7/16"	8	-	25,1	83
32-11/4"	115	48,4	24,4	40	2	10	32	11,1-7/16"	8	-	28,6	88
40-11/2"	130	56,3	29,5	47,5	2	11,6	38	14,3-9/16"	9,6	-	33,3	105
50-2"	145	71,5	26,5	69,5	1,5	12,5	50	14,3-9/16"	9,7	114	-	122

DN	ØJ	ØK	M	N	ØP	ØP1 SCH40	ØP1 ISO	ØR	S	T	ISO 5211	wght. kg
8-1/4"	36	25	M5	10	13,7	9,24	10,3	14,1	M6	134	F03	0,7
10-3/8"	36	25	M5	10	17,5	12,53	14	17,6	M6	134	F03	0,7
15-1/2"	36	25	M5	10	21,7	15,76	18,1	21,7	M6	134	F03	0,9
20-3/4"	36	25	M5	13	27,2	20,96	23,7	27,3	M8	134	F03	1,4
25-1"	42	30	M5	13	34	26,64	29,7	34,1	M8	170	F04	2,1
32-11/4"	42	30	M5	13	42,7	35,08	38,4	42,8	M10	170	F04	2,8
40-11/2"	50	35	M6	13	48,6	40,94	44,3	48,7	M10	207	F05	4
50-2"	50	35	M6	16	60,5	52,51	56,3	61	M12	207	F05	5,7

**Pressure / temperature graph for full bore valves**



<b>Code</b>	<b>Material</b>	<b>Seats</b>
T	PTFE	PTFE virgin
R	RPTFE	PTFE glass reinforced
C	CPTFE	PTFE carbon reinforced
S	SSPTFE	PTFE stainless steel reinf.
P	PEEK	
U	UHMW	Polyethelene Ultra high molecular
<b>Material bodyseals</b>		
R	RPTFE	PTFE glass reinforced
G	Graphite	
<b>Material stem packing</b>		
C	CPTFE	PTFE carbon reinforced
G	Graphite	

**Sample article code**

**0 2 6 1 5 . 6 0 0 R**

- 0 Carbon steel
- 2 Stainless steel
- 6 End ( 4 = BSPP, 5 = NPT, 6 = BW SCH40, 7 = BW ISO, 8 = BW OD, 9 = SW)
- 15 Size
- 6 End
- 00 Special
- R Code

Size DN	Reduced bore	Full bore	<u>Code</u>	Seat	Body- seal	Stem packing
8	-	11	R (standard)	R	R	C
10	-	12	C	C	R	C
15	03	13	F (firesafe)	C	G	G
20	04	14	T	T	R	C
25	05	15	P	P	G	G
32	06	16	W	R	G	C
40	07	17				
50	08	18				
65	09	-				

**C<sub>v</sub> - values** (gallon/min.) for reduced bore valves

C<sub>v</sub> = volume of water that will pass through a valve at a pressure drop of 1 bar

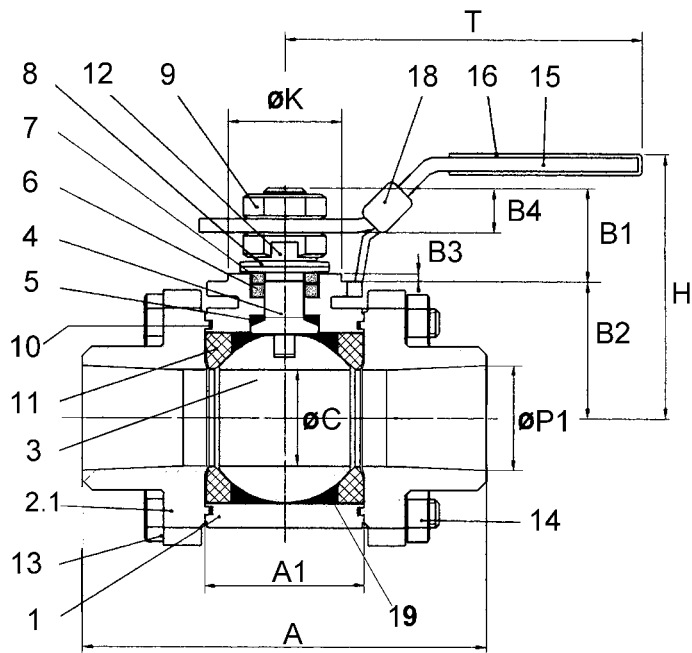
DN	8-15	20	25	32	40	50	65
C <sub>v</sub>	8	13	32	58	82	111	235

**Break torques** (Nm)

DN	8-10	15	20	25	32	40	50	65
red. bore	-	6	10	15	18	28	37	48
full bore	6	10	15	18	28	37	48	-

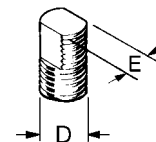
**Body and seat pressure tests** according to DIN 3230 BA/BO

Shelltest 1,5 x PN (water)    Seattest 0,5 bar by air

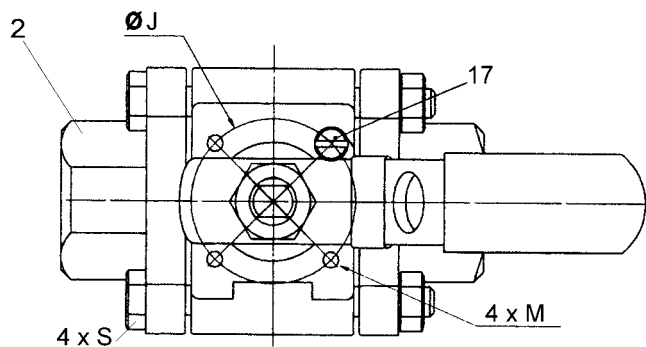


## Typ AF20

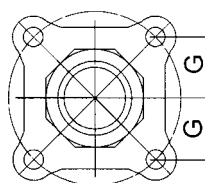
antistatic firesafe



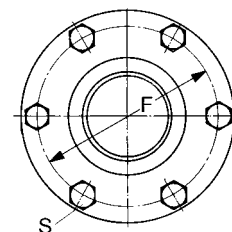
Stem



encapsulated bolts  
DN 8 - DN 40 full bore



DN15-50 red. bore  
DN 8-40 full bore



DN 65 red. bore  
DN 50 full bore

		<b>Stainless steel</b>	<b>Carbon steel</b>
1	Body	A351CF8M	A216WCB
2	Screwed end	A351CF8M	A216WCB
2.1	BW end	A351CF3M	A216WCB
3	Ball	316	316
4	Stem	316	316
5	Stem seal	PTFE	PTFE
6	Stem packing	Graphite	Graphite
7	Stem seal follower	304	304
8	Belleville washer	301	301
9	Stem nut	304	304
10	Bodyseal	Graphite	Graphite
11	Seat	PTFE/carbon	PTFE/carbon
12	Lock saddle	304	304
13	Bolt	304	304
14	Bolt nut	304	304
15	Handle	304	304
16	Handle sleeve	Vinyl	Vinyl
17	Stop pin	304	304
18	Locking device	304	304
19	Body cavity fillers (Option)	PTFE	PTFE

**Declaration of conformity  
according to the attachment VII of the EC standard 97/23**

The Company  
PROCOL Engineering AG  
Udermülstrasse 24  
CH-8320 Fehraltorf

Declares in fully own responsibility, that the product  
(pressure containing equipment part without mounted additional aggregates)

Fig.: **Ball Valve** - Series **20, 90 92**

Quantity: see delivery note No. xxxxxxxx

on which this declaration refers, is in conformity with EC standard 97/23  
and has been submitted to the corresponding conformity test procedure

Fluids of group 1 Dangerous gases and Fluids if $p_s > 0.5\text{bar}$	$\leq \text{DN } 25$	DN > 25 Diagram 6, Article 3 Attachment II		
Fluids of group 2 Other gases and Fluids if $p_s > 0.5\text{bar}$	$\leq \text{DN } 32$	DN > 32, $p_s \times \text{DN} > 1000$ Diagram 7, Article 3 Attachment II		
Category	none	I	II	III
Conformity- Test procedure	-	Module A	Module A1	Module H

The surveillance is made by SVTI

Society for technical inspection



**Score (Europe) Limited**  
Engineering Research, Design, Manufacture & Repair

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**Fire Test  
Certificate**

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Certificate in Accordance with Specifications  
B.S. 6755 PART 2 1987.  
a BALL VALVE  
Body Material CF8M  
Seat Material PTFE/ CARBON  
Size 1" DN 25 Class PN125  
Manufactured by PROCOL ENGINEERING AG  
has been tested by Score (Europe) Limited on 27/07/98  
at Score's Cowdenbeath works and has complied with the requirements.

This certificate must be read in conjunction with test report S71968-1




Test carried out by R HEPBURN / W HAY Score (Europe) Limited

Test witnessed by W.J.MARWAT and D PARNELL - by Manufacturer  
Test witnessed by W CAMPBELL - Lloyds Register

To Certifying Authority





PROCOL ENGINEERING AG    Telefon 01-48278 00  
CH-8802 KILCHBERG    Telefax 01-48278 14

Abnahmeprüfzeugnis – Mill Certificate – Relevé de Contrôle  
**EN 10204 (DIN 50 049) 3.1B**

PROCOL Kugelhähne / Ballvalves / Robinets à boisseau sphérique PROCOL  
Umstempelungszulassung / Restamping approval / Agrément de repoinçonnage  
TUV Prüf-Nr. WB-FR-940003822

Schmelze/Met./Coulée No.    Werkstoff/Material / Matière

1.4404

C %	Si %	Mn %	P %	S %	Cr %	Ni %	Mo %	Ti %
0,03	1,50	1,50	0,035	0,02	17,0-20,0	9,00-13,0	2,00-3,00	

Schmelze/Met./Coulée No.    Werkstoff/Material / Matière

1.4408

C %	Si %	Mn %	P %	S %	Cr %	Ni %	Mo %	Ti %
0,07	1,50	1,50	0,04	0,03	18,0-20,0	9,00-12,0	2,00-2,50	

Schmelze/Met./Coulée No.    Werkstoff/Material / Matière

GS-25

C %	Si %	Mn %	P %	S %	Cr %	Ni %	Mo %	Ti %
0,30	0,60	1,00	0,04	0,045				

Schmelze/Met./Coulée No.    Werkstoff/Material / Matière

C %	Si %	Mn %	P %	S %	Cr %	Ni %	Mo %	Ti %

Schmelze/Met./Coulée No.    Werkstoff/Material / Matière

C %	Si %	Mn %	P %	S %	Cr %	Ni %	Mo %	Ti %

Schmelze/Met./Coulée No.    Werkstoff/Material / Matière

C %	Si %	Mn %	P %	S %	Cr %	Ni %	Mo %	Ti %

Auftrags-/Order-/Référence No.    PROCOL Engineering AG  
Der Werkaschwerfändige/Works Inspector/L'expert de Fusion

**Cee Vee Ltd.**

Tel . 01453 821666

Fax . 01453 822298

www.cee-vee.co.uk