

**DEKLARACJA WŁAŚCIWOŚCI UŻYTKOWYCH**  
(DECLARATION OF PERFORMANCE)

Nr (No.) **NDWU/1/TUBUS 3 D50L/2021**

<b>1. Niepowtarzalny kod identyfikacyjny typu wyrobu (Unique identification code of the product-type):</b> TUBUS 3		
<b>2. Zamierzone zastosowanie lub zastosowania: W instalacjach grzewczych w budynkach</b> (Intended use/es: In heating systems in buildings)		
<b>3. Producent (Manufacturer):</b> INSTAL PROJEKT sp. z o. o., ul. Jana Pawła II 12 A, Nowa Wieś k/Włocławka, 87-853 Kruszyn, Polska (INSTAL PROJEKT sp. z o. o., Jana Pawła II 12 A str., Nowa Wieś near Włocławka, 87-853 Kruszyn, Poland.)		
<b>4. System(-y) oceny i weryfikacji stałości właściwości użytkowych (System/s of AVCP):</b> System 3		
<b>5. Norma zharmonizowana (Harmonised standard):</b> EN 442-1:2014		
<b>6. Jednostka lub jednostki notyfikowane (Notified body/ies):</b> INSTYTUT ENERGETYKI. Numer jednostki notyfikowanej (Notification no.): 1452.		
<b>7. Deklarowane właściwości użytkowe (Declared performance/s):</b>		
Zasadnicze charakterystyki	Właściwości użytkowe	Zharmonizowana specyfikacja techniczna
Essential characteristics	Performance	Harmonised technical specification
<b>Reakcja na ogień</b> (Reaction to fire)	A1	EN 442-1:2014
<b>Uwalnianie substancji niebezpiecznych</b> (Release of dangerous substances)	Nie ma (None)	
<b>Szczelność pod działaniem ciśnienia</b> (Pressure tightness)	Brak przecieku przy ciśnieniu 1,3 krotnie większym od maksymalnego ciśnienia [kPa] (No leakage at 1,3 x maximum operating pressure [kPa])	
<b>Temperatura powierzchni</b> (Surface temperature)	Maksymalnie 95 °C (Maximum 95 °C)	
<b>Odporność na działanie ciśnienia</b> (Resistance to pressure)	Brak pęknięć przy ciśnieniu 1,69 krotnie większym od maksymalnego dopuszczalnego ciśnienia roboczego [kPa]. (No breakage at 1,69 x maximum operating pressure [kPa])	
	Maksymalne dopuszczalne ciśnienie robocze: <b>1000 [kPa]</b> (Maximum operating pressure)	
<b>Nominalna moc cieplna (Φ 50 , Φ 30)</b> (Rated thermal output) (Φ 50 , Φ 30)	Patrz Tabela nr.1 (See Table No.1)	
<b>Moc cieplna w różnych warunkach eksploatacyjnych (charakterystyka)</b> (Thermal output in different operating conditions (characteristic curve))	Patrz Tabela nr.1 (See Table No.1)	
<b>Odporność na korozję</b> (Resistance against corrosion)	Brak korozji po 100 h w wilgoci (No corrosion after 100 h humidity)	
<b>Odporność na słabe uderzenia</b> (Resistance against minor impact)	Klasa 0 (Class 0)	
<b>8. Właściwości użytkowe określonego powyżej wyrobu są zgodne z zestawem deklarowanych właściwości użytkowych. Niniejsza deklaracja właściwości użytkowych wydana zostaje zgodnie z rozporządzeniem (UE) nr 305/2011 na wyłączną odpowiedzialność producenta określonego powyżej.</b> (The performance of the product identified above is in conformity with the set of declared performance/s. This declaration of performance is issued, in accordance with Regulation (EU) No 305/2011, under the sole responsibility of the manufacturer identified above.)		

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Tabela nr 1

(Table no. 1)

Model grzejnika	Normalna moc cieplna [W] (75/65/20°C) $\phi$ 50	Moc cieplna [W] (55/45/20°C) $\phi$ 30	Wykładnik n	$\Delta T$	$K_M$	Moc cieplna w różnych warunkach eksploatacji			
Radiator model	Rated thermal output (75/65/20°C) $\phi$ 50	Rated thermal output (55/45/20°C) $\phi$ 30	Index exponent n	$\Delta T$	$K_M$	Thermal output in different operating conditions (characteristic curve)			
TUB3-020/02D50L	44	23	1,2616	50	0,31913	$\phi =$	0,31913	x $\Delta T$	1,2616
TUB3-020/03D50L	67	35	1,2616	50	0,47869	$\phi =$	0,47869	x $\Delta T$	1,2616
TUB3-020/04D50L	89	47	1,2616	50	0,63825	$\phi =$	0,63825	x $\Delta T$	1,2616
TUB3-020/05D50L	111	58	1,2616	50	0,79782	$\phi =$	0,79782	x $\Delta T$	1,2616
TUB3-020/06D50L	133	70	1,2616	50	0,95738	$\phi =$	0,95738	x $\Delta T$	1,2616
TUB3-020/07D50L	155	82	1,2616	50	1,11694	$\phi =$	1,11694	x $\Delta T$	1,2616
TUB3-020/08D50L	178	93	1,2616	50	1,27650	$\phi =$	1,27650	x $\Delta T$	1,2616
TUB3-020/09D50L	200	105	1,2616	50	1,43607	$\phi =$	1,43607	x $\Delta T$	1,2616
TUB3-020/10D50L	222	117	1,2616	50	1,59563	$\phi =$	1,59563	x $\Delta T$	1,2616
TUB3-020/11D50L	244	128	1,2616	50	1,75519	$\phi =$	1,75519	x $\Delta T$	1,2616
TUB3-020/12D50L	266	140	1,2616	50	1,91476	$\phi =$	1,91476	x $\Delta T$	1,2616
TUB3-020/13D50L	289	151	1,2616	50	2,07432	$\phi =$	2,07432	x $\Delta T$	1,2616
TUB3-020/14D50L	311	163	1,2616	50	2,23388	$\phi =$	2,23388	x $\Delta T$	1,2616
TUB3-020/15D50L	333	175	1,2616	50	2,39345	$\phi =$	2,39345	x $\Delta T$	1,2616
TUB3-020/16D50L	355	186	1,2616	50	2,55301	$\phi =$	2,55301	x $\Delta T$	1,2616
TUB3-020/17D50L	377	198	1,2616	50	2,71257	$\phi =$	2,71257	x $\Delta T$	1,2616
TUB3-020/18D50L	400	210	1,2616	50	2,87214	$\phi =$	2,87214	x $\Delta T$	1,2616
TUB3-020/19D50L	422	221	1,2616	50	3,03170	$\phi =$	3,03170	x $\Delta T$	1,2616
TUB3-020/20D50L	444	233	1,2616	50	3,19126	$\phi =$	3,19126	x $\Delta T$	1,2616
TUB3-020/21D50L	466	245	1,2616	50	3,35082	$\phi =$	3,35082	x $\Delta T$	1,2616
TUB3-020/22D50L	488	256	1,2616	50	3,51039	$\phi =$	3,51039	x $\Delta T$	1,2616
TUB3-020/23D50L	511	268	1,2616	50	3,66995	$\phi =$	3,66995	x $\Delta T$	1,2616
TUB3-020/24D50L	533	280	1,2616	50	3,82951	$\phi =$	3,82951	x $\Delta T$	1,2616
TUB3-020/25D50L	555	291	1,2616	50	3,98908	$\phi =$	3,98908	x $\Delta T$	1,2616
TUB3-020/26D50L	577	303	1,2616	50	4,14864	$\phi =$	4,14864	x $\Delta T$	1,2616
TUB3-020/27D50L	599	315	1,2616	50	4,30820	$\phi =$	4,30820	x $\Delta T$	1,2616
TUB3-020/28D50L	622	326	1,2616	50	4,46777	$\phi =$	4,46777	x $\Delta T$	1,2616
TUB3-020/29D50L	644	338	1,2616	50	4,62733	$\phi =$	4,62733	x $\Delta T$	1,2616
TUB3-020/30D50L	666	350	1,2616	50	4,78689	$\phi =$	4,78689	x $\Delta T$	1,2616
TUB3-020/31D50L	688	361	1,2616	50	4,94646	$\phi =$	4,94646	x $\Delta T$	1,2616
TUB3-020/32D50L	710	373	1,2616	50	5,10602	$\phi =$	5,10602	x $\Delta T$	1,2616
TUB3-020/33D50L	733	385	1,2616	50	5,26558	$\phi =$	5,26558	x $\Delta T$	1,2616
TUB3-020/34D50L	755	396	1,2616	50	5,42514	$\phi =$	5,42514	x $\Delta T$	1,2616
TUB3-020/35D50L	777	408	1,2616	50	5,58471	$\phi =$	5,58471	x $\Delta T$	1,2616
TUB3-020/36D50L	799	420	1,2616	50	5,74427	$\phi =$	5,74427	x $\Delta T$	1,2616
TUB3-020/37D50L	821	431	1,2616	50	5,90383	$\phi =$	5,90383	x $\Delta T$	1,2616
TUB3-020/38D50L	844	443	1,2616	50	6,06340	$\phi =$	6,06340	x $\Delta T$	1,2616
TUB3-020/39D50L	866	454	1,2616	50	6,22296	$\phi =$	6,22296	x $\Delta T$	1,2616
TUB3-020/40D50L	888	466	1,2616	50	6,38252	$\phi =$	6,38252	x $\Delta T$	1,2616
TUB3-020/41D50L	910	478	1,2616	50	6,54209	$\phi =$	6,54209	x $\Delta T$	1,2616
TUB3-020/42D50L	932	489	1,2616	50	6,70165	$\phi =$	6,70165	x $\Delta T$	1,2616
TUB3-020/43D50L	955	501	1,2616	50	6,86121	$\phi =$	6,86121	x $\Delta T$	1,2616
TUB3-020/44D50L	977	513	1,2616	50	7,02078	$\phi =$	7,02078	x $\Delta T$	1,2616
TUB3-020/45D50L	999	524	1,2616	50	7,18034	$\phi =$	7,18034	x $\Delta T$	1,2616
TUB3-030/02D50L	65	34	1,2667	50	0,45796	$\phi =$	0,45796	x $\Delta T$	1,2667
TUB3-030/03D50L	98	51	1,2667	50	0,68694	$\phi =$	0,68694	x $\Delta T$	1,2667
TUB3-030/04D50L	130	68	1,2667	50	0,91592	$\phi =$	0,91592	x $\Delta T$	1,2667
TUB3-030/05D50L	163	85	1,2667	50	1,14490	$\phi =$	1,14490	x $\Delta T$	1,2667
TUB3-030/06D50L	195	102	1,2667	50	1,37388	$\phi =$	1,37388	x $\Delta T$	1,2667
TUB3-030/07D50L	228	119	1,2667	50	1,60286	$\phi =$	1,60286	x $\Delta T$	1,2667
TUB3-030/08D50L	260	136	1,2667	50	1,83184	$\phi =$	1,83184	x $\Delta T$	1,2667
TUB3-030/09D50L	293	153	1,2667	50	2,06082	$\phi =$	2,06082	x $\Delta T$	1,2667
TUB3-030/10D50L	325	170	1,2667	50	2,28980	$\phi =$	2,28980	x $\Delta T$	1,2667
TUB3-030/11D50L	358	187	1,2667	50	2,51878	$\phi =$	2,51878	x $\Delta T$	1,2667
TUB3-030/12D50L	390	204	1,2667	50	2,74776	$\phi =$	2,74776	x $\Delta T$	1,2667
TUB3-030/13D50L	423	221	1,2667	50	2,97674	$\phi =$	2,97674	x $\Delta T$	1,2667
TUB3-030/14D50L	455	238	1,2667	50	3,20572	$\phi =$	3,20572	x $\Delta T$	1,2667
TUB3-030/15D50L	488	255	1,2667	50	3,43470	$\phi =$	3,43470	x $\Delta T$	1,2667
TUB3-030/16D50L	520	272	1,2667	50	3,66368	$\phi =$	3,66368	x $\Delta T$	1,2667

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TUB3-030/17D50L	553	289	1,2667	50	3,89266	$\phi =$	3,89266	$\times \Delta T$	1,2667
TUB3-030/18D50L	585	306	1,2667	50	4,12164	$\phi =$	4,12164	$\times \Delta T$	1,2667
TUB3-030/19D50L	618	323	1,2667	50	4,35063	$\phi =$	4,35063	$\times \Delta T$	1,2667
TUB3-030/20D50L	650	340	1,2667	50	4,57961	$\phi =$	4,57961	$\times \Delta T$	1,2667
TUB3-030/21D50L	683	357	1,2667	50	4,80859	$\phi =$	4,80859	$\times \Delta T$	1,2667
TUB3-030/22D50L	715	374	1,2667	50	5,03757	$\phi =$	5,03757	$\times \Delta T$	1,2667
TUB3-030/23D50L	748	391	1,2667	50	5,26655	$\phi =$	5,26655	$\times \Delta T$	1,2667
TUB3-030/24D50L	780	408	1,2667	50	5,49553	$\phi =$	5,49553	$\times \Delta T$	1,2667
TUB3-030/25D50L	813	425	1,2667	50	5,72451	$\phi =$	5,72451	$\times \Delta T$	1,2667
TUB3-030/26D50L	845	442	1,2667	50	5,95349	$\phi =$	5,95349	$\times \Delta T$	1,2667
TUB3-030/27D50L	878	459	1,2667	50	6,18247	$\phi =$	6,18247	$\times \Delta T$	1,2667
TUB3-030/28D50L	910	476	1,2667	50	6,41145	$\phi =$	6,41145	$\times \Delta T$	1,2667
TUB3-030/29D50L	943	493	1,2667	50	6,64043	$\phi =$	6,64043	$\times \Delta T$	1,2667
TUB3-030/30D50L	975	510	1,2667	50	6,86941	$\phi =$	6,86941	$\times \Delta T$	1,2667
TUB3-030/31D50L	1008	528	1,2667	50	7,09839	$\phi =$	7,09839	$\times \Delta T$	1,2667
TUB3-030/32D50L	1040	545	1,2667	50	7,32737	$\phi =$	7,32737	$\times \Delta T$	1,2667
TUB3-030/33D50L	1073	562	1,2667	50	7,55635	$\phi =$	7,55635	$\times \Delta T$	1,2667
TUB3-030/34D50L	1105	579	1,2667	50	7,78533	$\phi =$	7,78533	$\times \Delta T$	1,2667
TUB3-030/35D50L	1138	596	1,2667	50	8,01431	$\phi =$	8,01431	$\times \Delta T$	1,2667
TUB3-030/36D50L	1170	613	1,2667	50	8,24329	$\phi =$	8,24329	$\times \Delta T$	1,2667
TUB3-030/37D50L	1203	630	1,2667	50	8,47227	$\phi =$	8,47227	$\times \Delta T$	1,2667
TUB3-030/38D50L	1235	647	1,2667	50	8,70125	$\phi =$	8,70125	$\times \Delta T$	1,2667
TUB3-030/39D50L	1268	664	1,2667	50	8,93023	$\phi =$	8,93023	$\times \Delta T$	1,2667
TUB3-030/40D50L	1300	681	1,2667	50	9,15921	$\phi =$	9,15921	$\times \Delta T$	1,2667
TUB3-030/41D50L	1333	698	1,2667	50	9,38819	$\phi =$	9,38819	$\times \Delta T$	1,2667
TUB3-030/42D50L	1365	715	1,2667	50	9,61717	$\phi =$	9,61717	$\times \Delta T$	1,2667
TUB3-030/43D50L	1398	732	1,2667	50	9,84615	$\phi =$	9,84615	$\times \Delta T$	1,2667
TUB3-030/44D50L	1430	749	1,2667	50	10,07513	$\phi =$	10,07513	$\times \Delta T$	1,2667
TUB3-030/45D50L	1463	766	1,2667	50	10,30411	$\phi =$	10,30411	$\times \Delta T$	1,2667
TUB3-040/02D50L	85	45	1,2698	50	0,59304	$\phi =$	0,59304	$\times \Delta T$	1,2698
TUB3-040/03D50L	128	67	1,2698	50	0,88957	$\phi =$	0,88957	$\times \Delta T$	1,2698
TUB3-040/04D50L	170	89	1,2698	50	1,18609	$\phi =$	1,18609	$\times \Delta T$	1,2698
TUB3-040/05D50L	213	111	1,2698	50	1,48261	$\phi =$	1,48261	$\times \Delta T$	1,2698
TUB3-040/06D50L	256	134	1,2698	50	1,77913	$\phi =$	1,77913	$\times \Delta T$	1,2698
TUB3-040/07D50L	298	156	1,2698	50	2,07566	$\phi =$	2,07566	$\times \Delta T$	1,2698
TUB3-040/08D50L	341	178	1,2698	50	2,37218	$\phi =$	2,37218	$\times \Delta T$	1,2698
TUB3-040/09D50L	383	200	1,2698	50	2,66870	$\phi =$	2,66870	$\times \Delta T$	1,2698
TUB3-040/10D50L	426	223	1,2698	50	2,96522	$\phi =$	2,96522	$\times \Delta T$	1,2698
TUB3-040/11D50L	469	245	1,2698	50	3,26175	$\phi =$	3,26175	$\times \Delta T$	1,2698
TUB3-040/12D50L	511	267	1,2698	50	3,55827	$\phi =$	3,55827	$\times \Delta T$	1,2698
TUB3-040/13D50L	554	290	1,2698	50	3,85479	$\phi =$	3,85479	$\times \Delta T$	1,2698
TUB3-040/14D50L	596	312	1,2698	50	4,15131	$\phi =$	4,15131	$\times \Delta T$	1,2698
TUB3-040/15D50L	639	334	1,2698	50	4,44784	$\phi =$	4,44784	$\times \Delta T$	1,2698
TUB3-040/16D50L	682	356	1,2698	50	4,74436	$\phi =$	4,74436	$\times \Delta T$	1,2698
TUB3-040/17D50L	724	379	1,2698	50	5,04088	$\phi =$	5,04088	$\times \Delta T$	1,2698
TUB3-040/18D50L	767	401	1,2698	50	5,33740	$\phi =$	5,33740	$\times \Delta T$	1,2698
TUB3-040/19D50L	809	423	1,2698	50	5,63393	$\phi =$	5,63393	$\times \Delta T$	1,2698
TUB3-040/20D50L	852	445	1,2698	50	5,93045	$\phi =$	5,93045	$\times \Delta T$	1,2698
TUB3-040/21D50L	895	468	1,2698	50	6,22697	$\phi =$	6,22697	$\times \Delta T$	1,2698
TUB3-040/22D50L	937	490	1,2698	50	6,52349	$\phi =$	6,52349	$\times \Delta T$	1,2698
TUB3-040/23D50L	980	512	1,2698	50	6,82001	$\phi =$	6,82001	$\times \Delta T$	1,2698
TUB3-040/24D50L	1022	534	1,2698	50	7,11654	$\phi =$	7,11654	$\times \Delta T$	1,2698
TUB3-040/25D50L	1065	557	1,2698	50	7,41306	$\phi =$	7,41306	$\times \Delta T$	1,2698
TUB3-040/26D50L	1108	579	1,2698	50	7,70958	$\phi =$	7,70958	$\times \Delta T$	1,2698
TUB3-040/27D50L	1150	601	1,2698	50	8,00610	$\phi =$	8,00610	$\times \Delta T$	1,2698
TUB3-040/28D50L	1193	624	1,2698	50	8,30263	$\phi =$	8,30263	$\times \Delta T$	1,2698
TUB3-040/29D50L	1235	646	1,2698	50	8,59915	$\phi =$	8,59915	$\times \Delta T$	1,2698
TUB3-040/30D50L	1278	668	1,2698	50	8,89567	$\phi =$	8,89567	$\times \Delta T$	1,2698
TUB3-040/31D50L	1321	690	1,2698	50	9,19219	$\phi =$	9,19219	$\times \Delta T$	1,2698
TUB3-040/32D50L	1363	713	1,2698	50	9,48872	$\phi =$	9,48872	$\times \Delta T$	1,2698
TUB3-040/33D50L	1406	735	1,2698	50	9,78524	$\phi =$	9,78524	$\times \Delta T$	1,2698
TUB3-040/34D50L	1448	757	1,2698	50	10,08176	$\phi =$	10,08176	$\times \Delta T$	1,2698
TUB3-040/35D50L	1491	779	1,2698	50	10,37828	$\phi =$	10,37828	$\times \Delta T$	1,2698
TUB3-040/36D50L	1534	802	1,2698	50	10,67481	$\phi =$	10,67481	$\times \Delta T$	1,2698
TUB3-040/37D50L	1576	824	1,2698	50	10,97133	$\phi =$	10,97133	$\times \Delta T$	1,2698

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TUB3-040/38D50L	1619	846	1,2698	50	11,26785	$\phi =$	11,26785	$\times \Delta T$	1,2698
TUB3-040/39D50L	1661	869	1,2698	50	11,56437	$\phi =$	11,56437	$\times \Delta T$	1,2698
TUB3-040/40D50L	1704	891	1,2698	50	11,86090	$\phi =$	11,86090	$\times \Delta T$	1,2698
TUB3-040/41D50L	1747	913	1,2698	50	12,15742	$\phi =$	12,15742	$\times \Delta T$	1,2698
TUB3-040/42D50L	1789	935	1,2698	50	12,45394	$\phi =$	12,45394	$\times \Delta T$	1,2698
TUB3-040/43D50L	1832	958	1,2698	50	12,75046	$\phi =$	12,75046	$\times \Delta T$	1,2698
TUB3-040/44D50L	1874	980	1,2698	50	13,04699	$\phi =$	13,04699	$\times \Delta T$	1,2698
TUB3-040/45D50L	1917	1002	1,2698	50	13,34351	$\phi =$	13,34351	$\times \Delta T$	1,2698
TUB3-050/02D50L	105	55	1,2722	50	0,72679	$\phi =$	0,72679	$\times \Delta T$	1,2722
TUB3-050/03D50L	158	83	1,2722	50	1,09019	$\phi =$	1,09019	$\times \Delta T$	1,2722
TUB3-050/04D50L	211	110	1,2722	50	1,45359	$\phi =$	1,45359	$\times \Delta T$	1,2722
TUB3-050/05D50L	264	138	1,2722	50	1,81698	$\phi =$	1,81698	$\times \Delta T$	1,2722
TUB3-050/06D50L	316	165	1,2722	50	2,18038	$\phi =$	2,18038	$\times \Delta T$	1,2722
TUB3-050/07D50L	369	193	1,2722	50	2,54378	$\phi =$	2,54378	$\times \Delta T$	1,2722
TUB3-050/08D50L	422	220	1,2722	50	2,90717	$\phi =$	2,90717	$\times \Delta T$	1,2722
TUB3-050/09D50L	474	248	1,2722	50	3,27057	$\phi =$	3,27057	$\times \Delta T$	1,2722
TUB3-050/10D50L	527	275	1,2722	50	3,63397	$\phi =$	3,63397	$\times \Delta T$	1,2722
TUB3-050/11D50L	580	303	1,2722	50	3,99736	$\phi =$	3,99736	$\times \Delta T$	1,2722
TUB3-050/12D50L	632	330	1,2722	50	4,36076	$\phi =$	4,36076	$\times \Delta T$	1,2722
TUB3-050/13D50L	685	358	1,2722	50	4,72416	$\phi =$	4,72416	$\times \Delta T$	1,2722
TUB3-050/14D50L	738	385	1,2722	50	5,08755	$\phi =$	5,08755	$\times \Delta T$	1,2722
TUB3-050/15D50L	791	413	1,2722	50	5,45095	$\phi =$	5,45095	$\times \Delta T$	1,2722
TUB3-050/16D50L	843	440	1,2722	50	5,81435	$\phi =$	5,81435	$\times \Delta T$	1,2722
TUB3-050/17D50L	896	468	1,2722	50	6,17774	$\phi =$	6,17774	$\times \Delta T$	1,2722
TUB3-050/18D50L	949	495	1,2722	50	6,54114	$\phi =$	6,54114	$\times \Delta T$	1,2722
TUB3-050/19D50L	1001	523	1,2722	50	6,90454	$\phi =$	6,90454	$\times \Delta T$	1,2722
TUB3-050/20D50L	1054	550	1,2722	50	7,26793	$\phi =$	7,26793	$\times \Delta T$	1,2722
TUB3-050/21D50L	1107	578	1,2722	50	7,63133	$\phi =$	7,63133	$\times \Delta T$	1,2722
TUB3-050/22D50L	1159	605	1,2722	50	7,99473	$\phi =$	7,99473	$\times \Delta T$	1,2722
TUB3-050/23D50L	1212	633	1,2722	50	8,35812	$\phi =$	8,35812	$\times \Delta T$	1,2722
TUB3-050/24D50L	1265	660	1,2722	50	8,72152	$\phi =$	8,72152	$\times \Delta T$	1,2722
TUB3-050/25D50L	1318	688	1,2722	50	9,08492	$\phi =$	9,08492	$\times \Delta T$	1,2722
TUB3-050/26D50L	1370	715	1,2722	50	9,44831	$\phi =$	9,44831	$\times \Delta T$	1,2722
TUB3-050/27D50L	1423	743	1,2722	50	9,81171	$\phi =$	9,81171	$\times \Delta T$	1,2722
TUB3-050/28D50L	1476	770	1,2722	50	10,17511	$\phi =$	10,17511	$\times \Delta T$	1,2722
TUB3-050/29D50L	1528	798	1,2722	50	10,53850	$\phi =$	10,53850	$\times \Delta T$	1,2722
TUB3-050/30D50L	1581	825	1,2722	50	10,90190	$\phi =$	10,90190	$\times \Delta T$	1,2722
TUB3-050/31D50L	1634	853	1,2722	50	11,26530	$\phi =$	11,26530	$\times \Delta T$	1,2722
TUB3-050/32D50L	1686	880	1,2722	50	11,62869	$\phi =$	11,62869	$\times \Delta T$	1,2722
TUB3-050/33D50L	1739	908	1,2722	50	11,99209	$\phi =$	11,99209	$\times \Delta T$	1,2722
TUB3-050/34D50L	1792	936	1,2722	50	12,35549	$\phi =$	12,35549	$\times \Delta T$	1,2722
TUB3-050/35D50L	1845	963	1,2722	50	12,71888	$\phi =$	12,71888	$\times \Delta T$	1,2722
TUB3-050/36D50L	1897	991	1,2722	50	13,08228	$\phi =$	13,08228	$\times \Delta T$	1,2722
TUB3-050/37D50L	1950	1018	1,2722	50	13,44568	$\phi =$	13,44568	$\times \Delta T$	1,2722
TUB3-050/38D50L	2003	1046	1,2722	50	13,80907	$\phi =$	13,80907	$\times \Delta T$	1,2722
TUB3-050/39D50L	2055	1073	1,2722	50	14,17247	$\phi =$	14,17247	$\times \Delta T$	1,2722
TUB3-050/40D50L	2108	1101	1,2722	50	14,53587	$\phi =$	14,53587	$\times \Delta T$	1,2722
TUB3-050/41D50L	2161	1128	1,2722	50	14,89926	$\phi =$	14,89926	$\times \Delta T$	1,2722
TUB3-050/42D50L	2213	1156	1,2722	50	15,26266	$\phi =$	15,26266	$\times \Delta T$	1,2722
TUB3-050/43D50L	2266	1183	1,2722	50	15,62606	$\phi =$	15,62606	$\times \Delta T$	1,2722
TUB3-050/44D50L	2319	1211	1,2722	50	15,98945	$\phi =$	15,98945	$\times \Delta T$	1,2722
TUB3-050/45D50L	2372	1238	1,2722	50	16,35285	$\phi =$	16,35285	$\times \Delta T$	1,2722
TUB3-070/02D50L	145	76	1,2762	50	0,98569	$\phi =$	0,98569	$\times \Delta T$	1,2762
TUB3-070/03D50L	218	113	1,2762	50	1,47854	$\phi =$	1,47854	$\times \Delta T$	1,2762
TUB3-070/04D50L	290	151	1,2762	50	1,97138	$\phi =$	1,97138	$\times \Delta T$	1,2762
TUB3-070/05D50L	363	189	1,2762	50	2,46423	$\phi =$	2,46423	$\times \Delta T$	1,2762
TUB3-070/06D50L	436	227	1,2762	50	2,95708	$\phi =$	2,95708	$\times \Delta T$	1,2762
TUB3-070/07D50L	508	265	1,2762	50	3,44992	$\phi =$	3,44992	$\times \Delta T$	1,2762
TUB3-070/08D50L	581	303	1,2762	50	3,94277	$\phi =$	3,94277	$\times \Delta T$	1,2762
TUB3-070/09D50L	653	340	1,2762	50	4,43561	$\phi =$	4,43561	$\times \Delta T$	1,2762
TUB3-070/10D50L	726	378	1,2762	50	4,92846	$\phi =$	4,92846	$\times \Delta T$	1,2762
TUB3-070/11D50L	799	416	1,2762	50	5,42130	$\phi =$	5,42130	$\times \Delta T$	1,2762
TUB3-070/12D50L	871	454	1,2762	50	5,91415	$\phi =$	5,91415	$\times \Delta T$	1,2762
TUB3-070/13D50L	944	492	1,2762	50	6,40700	$\phi =$	6,40700	$\times \Delta T$	1,2762
TUB3-070/14D50L	1016	530	1,2762	50	6,89984	$\phi =$	6,89984	$\times \Delta T$	1,2762

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TUB3-070/15D50L	1089	567	1,2762	50	7,39269	φ =	7,39269	x ΔT	1,2762
TUB3-070/16D50L	1162	605	1,2762	50	7,88553	φ =	7,88553	x ΔT	1,2762
TUB3-070/17D50L	1234	643	1,2762	50	8,37838	φ =	8,37838	x ΔT	1,2762
TUB3-070/18D50L	1307	681	1,2762	50	8,87123	φ =	8,87123	x ΔT	1,2762
TUB3-070/19D50L	1379	719	1,2762	50	9,36407	φ =	9,36407	x ΔT	1,2762
TUB3-070/20D50L	1452	757	1,2762	50	9,85692	φ =	9,85692	x ΔT	1,2762
TUB3-070/21D50L	1525	794	1,2762	50	10,34976	φ =	10,34976	x ΔT	1,2762
TUB3-070/22D50L	1597	832	1,2762	50	10,84261	φ =	10,84261	x ΔT	1,2762
TUB3-070/23D50L	1670	870	1,2762	50	11,33545	φ =	11,33545	x ΔT	1,2762
TUB3-070/24D50L	1742	908	1,2762	50	11,82830	φ =	11,82830	x ΔT	1,2762
TUB3-070/25D50L	1815	946	1,2762	50	12,32115	φ =	12,32115	x ΔT	1,2762
TUB3-070/26D50L	1888	984	1,2762	50	12,81399	φ =	12,81399	x ΔT	1,2762
TUB3-070/27D50L	1960	1021	1,2762	50	13,30684	φ =	13,30684	x ΔT	1,2762
TUB3-070/28D50L	2033	1059	1,2762	50	13,79968	φ =	13,79968	x ΔT	1,2762
TUB3-070/29D50L	2105	1097	1,2762	50	14,29253	φ =	14,29253	x ΔT	1,2762
TUB3-070/30D50L	2178	1135	1,2762	50	14,78538	φ =	14,78538	x ΔT	1,2762
TUB3-070/31D50L	2251	1173	1,2762	50	15,27822	φ =	15,27822	x ΔT	1,2762
TUB3-070/32D50L	2323	1210	1,2762	50	15,77107	φ =	15,77107	x ΔT	1,2762
TUB3-070/33D50L	2396	1248	1,2762	50	16,26391	φ =	16,26391	x ΔT	1,2762
TUB3-070/34D50L	2468	1286	1,2762	50	16,75676	φ =	16,75676	x ΔT	1,2762
TUB3-070/35D50L	2541	1324	1,2762	50	17,24960	φ =	17,24960	x ΔT	1,2762
TUB3-070/36D50L	2614	1362	1,2762	50	17,74245	φ =	17,74245	x ΔT	1,2762
TUB3-070/37D50L	2686	1400	1,2762	50	18,23530	φ =	18,23530	x ΔT	1,2762
TUB3-070/38D50L	2759	1437	1,2762	50	18,72814	φ =	18,72814	x ΔT	1,2762
TUB3-070/39D50L	2831	1475	1,2762	50	19,22099	φ =	19,22099	x ΔT	1,2762
TUB3-070/40D50L	2904	1513	1,2762	50	19,71383	φ =	19,71383	x ΔT	1,2762
TUB3-070/41D50L	2977	1551	1,2762	50	20,20668	φ =	20,20668	x ΔT	1,2762
TUB3-070/42D50L	3049	1589	1,2762	50	20,69953	φ =	20,69953	x ΔT	1,2762
TUB3-080/02D50L	165	86	1,2779	50	1,11403	φ =	1,11403	x ΔT	1,2779
TUB3-080/03D50L	248	129	1,2779	50	1,67104	φ =	1,67104	x ΔT	1,2779
TUB3-080/04D50L	330	172	1,2779	50	2,22806	φ =	2,22806	x ΔT	1,2779
TUB3-080/05D50L	413	215	1,2779	50	2,78507	φ =	2,78507	x ΔT	1,2779
TUB3-080/06D50L	496	258	1,2779	50	3,34209	φ =	3,34209	x ΔT	1,2779
TUB3-080/07D50L	578	301	1,2779	50	3,89910	φ =	3,89910	x ΔT	1,2779
TUB3-080/08D50L	661	344	1,2779	50	4,45611	φ =	4,45611	x ΔT	1,2779
TUB3-080/09D50L	743	387	1,2779	50	5,01313	φ =	5,01313	x ΔT	1,2779
TUB3-080/10D50L	826	430	1,2779	50	5,57014	φ =	5,57014	x ΔT	1,2779
TUB3-080/11D50L	909	473	1,2779	50	6,12716	φ =	6,12716	x ΔT	1,2779
TUB3-080/12D50L	991	516	1,2779	50	6,68417	φ =	6,68417	x ΔT	1,2779
TUB3-080/13D50L	1074	559	1,2779	50	7,24118	φ =	7,24118	x ΔT	1,2779
TUB3-080/14D50L	1156	602	1,2779	50	7,79820	φ =	7,79820	x ΔT	1,2779
TUB3-080/15D50L	1239	645	1,2779	50	8,35521	φ =	8,35521	x ΔT	1,2779
TUB3-080/16D50L	1322	688	1,2779	50	8,91223	φ =	8,91223	x ΔT	1,2779
TUB3-080/17D50L	1404	731	1,2779	50	9,46924	φ =	9,46924	x ΔT	1,2779
TUB3-080/18D50L	1487	774	1,2779	50	10,02626	φ =	10,02626	x ΔT	1,2779
TUB3-080/19D50L	1569	817	1,2779	50	10,58327	φ =	10,58327	x ΔT	1,2779
TUB3-080/20D50L	1652	860	1,2779	50	11,14028	φ =	11,14028	x ΔT	1,2779
TUB3-080/21D50L	1735	903	1,2779	50	11,69730	φ =	11,69730	x ΔT	1,2779
TUB3-080/22D50L	1817	946	1,2779	50	12,25431	φ =	12,25431	x ΔT	1,2779
TUB3-080/23D50L	1900	989	1,2779	50	12,81133	φ =	12,81133	x ΔT	1,2779
TUB3-080/24D50L	1982	1032	1,2779	50	13,36834	φ =	13,36834	x ΔT	1,2779
TUB3-080/25D50L	2065	1075	1,2779	50	13,92536	φ =	13,92536	x ΔT	1,2779
TUB3-080/26D50L	2148	1118	1,2779	50	14,48237	φ =	14,48237	x ΔT	1,2779
TUB3-080/27D50L	2230	1161	1,2779	50	15,03938	φ =	15,03938	x ΔT	1,2779
TUB3-080/28D50L	2313	1204	1,2779	50	15,59640	φ =	15,59640	x ΔT	1,2779
TUB3-080/29D50L	2395	1247	1,2779	50	16,15341	φ =	16,15341	x ΔT	1,2779
TUB3-080/30D50L	2478	1290	1,2779	50	16,71043	φ =	16,71043	x ΔT	1,2779
TUB3-080/31D50L	2561	1333	1,2779	50	17,26744	φ =	17,26744	x ΔT	1,2779
TUB3-080/32D50L	2643	1376	1,2779	50	17,82445	φ =	17,82445	x ΔT	1,2779
TUB3-080/33D50L	2726	1419	1,2779	50	18,38147	φ =	18,38147	x ΔT	1,2779
TUB3-080/34D50L	2808	1462	1,2779	50	18,93848	φ =	18,93848	x ΔT	1,2779
TUB3-080/35D50L	2891	1505	1,2779	50	19,49550	φ =	19,49550	x ΔT	1,2779
TUB3-080/36D50L	2974	1548	1,2779	50	20,05251	φ =	20,05251	x ΔT	1,2779
TUB3-080/37D50L	3056	1591	1,2779	50	20,60953	φ =	20,60953	x ΔT	1,2779
TUB3-090/02D50L	185	96	1,2795	50	1,23977	φ =	1,23977	x ΔT	1,2795

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TUB3-090/03D50L	278	144	1,2795	50	1,85965	$\phi =$	1,85965	$\times \Delta T$	1,2795
TUB3-090/04D50L	370	192	1,2795	50	2,47953	$\phi =$	2,47953	$\times \Delta T$	1,2795
TUB3-090/05D50L	463	241	1,2795	50	3,09941	$\phi =$	3,09941	$\times \Delta T$	1,2795
TUB3-090/06D50L	555	289	1,2795	50	3,71930	$\phi =$	3,71930	$\times \Delta T$	1,2795
TUB3-090/07D50L	648	337	1,2795	50	4,33918	$\phi =$	4,33918	$\times \Delta T$	1,2795
TUB3-090/08D50L	740	385	1,2795	50	4,95906	$\phi =$	4,95906	$\times \Delta T$	1,2795
TUB3-090/09D50L	833	433	1,2795	50	5,57895	$\phi =$	5,57895	$\times \Delta T$	1,2795
TUB3-090/10D50L	925	481	1,2795	50	6,19883	$\phi =$	6,19883	$\times \Delta T$	1,2795
TUB3-090/11D50L	1018	529	1,2795	50	6,81871	$\phi =$	6,81871	$\times \Delta T$	1,2795
TUB3-090/12D50L	1110	577	1,2795	50	7,43859	$\phi =$	7,43859	$\times \Delta T$	1,2795
TUB3-090/13D50L	1203	626	1,2795	50	8,05848	$\phi =$	8,05848	$\times \Delta T$	1,2795
TUB3-090/14D50L	1295	674	1,2795	50	8,67836	$\phi =$	8,67836	$\times \Delta T$	1,2795
TUB3-090/15D50L	1388	722	1,2795	50	9,29824	$\phi =$	9,29824	$\times \Delta T$	1,2795
TUB3-090/16D50L	1480	770	1,2795	50	9,91813	$\phi =$	9,91813	$\times \Delta T$	1,2795
TUB3-090/17D50L	1573	818	1,2795	50	10,53801	$\phi =$	10,53801	$\times \Delta T$	1,2795
TUB3-090/18D50L	1665	866	1,2795	50	11,15789	$\phi =$	11,15789	$\times \Delta T$	1,2795
TUB3-090/19D50L	1758	914	1,2795	50	11,77777	$\phi =$	11,77777	$\times \Delta T$	1,2795
TUB3-090/20D50L	1850	962	1,2795	50	12,39766	$\phi =$	12,39766	$\times \Delta T$	1,2795
TUB3-090/21D50L	1943	1010	1,2795	50	13,01754	$\phi =$	13,01754	$\times \Delta T$	1,2795
TUB3-090/22D50L	2035	1059	1,2795	50	13,63742	$\phi =$	13,63742	$\times \Delta T$	1,2795
TUB3-090/23D50L	2128	1107	1,2795	50	14,25731	$\phi =$	14,25731	$\times \Delta T$	1,2795
TUB3-090/24D50L	2220	1155	1,2795	50	14,87719	$\phi =$	14,87719	$\times \Delta T$	1,2795
TUB3-090/25D50L	2313	1203	1,2795	50	15,49707	$\phi =$	15,49707	$\times \Delta T$	1,2795
TUB3-090/26D50L	2405	1251	1,2795	50	16,11695	$\phi =$	16,11695	$\times \Delta T$	1,2795
TUB3-090/27D50L	2498	1299	1,2795	50	16,73684	$\phi =$	16,73684	$\times \Delta T$	1,2795
TUB3-090/28D50L	2590	1347	1,2795	50	17,35672	$\phi =$	17,35672	$\times \Delta T$	1,2795
TUB3-090/29D50L	2683	1395	1,2795	50	17,97660	$\phi =$	17,97660	$\times \Delta T$	1,2795
TUB3-090/30D50L	2775	1443	1,2795	50	18,59649	$\phi =$	18,59649	$\times \Delta T$	1,2795
TUB3-090/31D50L	2868	1492	1,2795	50	19,21637	$\phi =$	19,21637	$\times \Delta T$	1,2795
TUB3-090/32D50L	2960	1540	1,2795	50	19,83625	$\phi =$	19,83625	$\times \Delta T$	1,2795
TUB3-090/33D50L	3053	1588	1,2795	50	20,45613	$\phi =$	20,45613	$\times \Delta T$	1,2795
TUB3-090/34D50L	3145	1636	1,2795	50	21,07602	$\phi =$	21,07602	$\times \Delta T$	1,2795
TUB3-100/02D50L	205	107	1,2811	50	1,36522	$\phi =$	1,36522	$\times \Delta T$	1,2811
TUB3-100/03D50L	308	160	1,2811	50	2,04783	$\phi =$	2,04783	$\times \Delta T$	1,2811
TUB3-100/04D50L	410	213	1,2811	50	2,73044	$\phi =$	2,73044	$\times \Delta T$	1,2811
TUB3-100/05D50L	513	266	1,2811	50	3,41306	$\phi =$	3,41306	$\times \Delta T$	1,2811
TUB3-100/06D50L	615	320	1,2811	50	4,09567	$\phi =$	4,09567	$\times \Delta T$	1,2811
TUB3-100/07D50L	718	373	1,2811	50	4,77828	$\phi =$	4,77828	$\times \Delta T$	1,2811
TUB3-100/08D50L	820	426	1,2811	50	5,46089	$\phi =$	5,46089	$\times \Delta T$	1,2811
TUB3-100/09D50L	923	479	1,2811	50	6,14350	$\phi =$	6,14350	$\times \Delta T$	1,2811
TUB3-100/10D50L	1025	533	1,2811	50	6,82611	$\phi =$	6,82611	$\times \Delta T$	1,2811
TUB3-100/11D50L	1128	586	1,2811	50	7,50872	$\phi =$	7,50872	$\times \Delta T$	1,2811
TUB3-100/12D50L	1230	639	1,2811	50	8,19133	$\phi =$	8,19133	$\times \Delta T$	1,2811
TUB3-100/13D50L	1333	693	1,2811	50	8,87395	$\phi =$	8,87395	$\times \Delta T$	1,2811
TUB3-100/14D50L	1435	746	1,2811	50	9,55656	$\phi =$	9,55656	$\times \Delta T$	1,2811
TUB3-100/15D50L	1538	799	1,2811	50	10,23917	$\phi =$	10,23917	$\times \Delta T$	1,2811
TUB3-100/16D50L	1640	852	1,2811	50	10,92178	$\phi =$	10,92178	$\times \Delta T$	1,2811
TUB3-100/17D50L	1743	906	1,2811	50	11,60439	$\phi =$	11,60439	$\times \Delta T$	1,2811
TUB3-100/18D50L	1845	959	1,2811	50	12,28700	$\phi =$	12,28700	$\times \Delta T$	1,2811
TUB3-100/19D50L	1948	1012	1,2811	50	12,96961	$\phi =$	12,96961	$\times \Delta T$	1,2811
TUB3-100/20D50L	2050	1065	1,2811	50	13,65222	$\phi =$	13,65222	$\times \Delta T$	1,2811
TUB3-100/21D50L	2153	1119	1,2811	50	14,33483	$\phi =$	14,33483	$\times \Delta T$	1,2811
TUB3-100/22D50L	2255	1172	1,2811	50	15,01745	$\phi =$	15,01745	$\times \Delta T$	1,2811
TUB3-100/23D50L	2358	1225	1,2811	50	15,70006	$\phi =$	15,70006	$\times \Delta T$	1,2811
TUB3-100/24D50L	2460	1279	1,2811	50	16,38267	$\phi =$	16,38267	$\times \Delta T$	1,2811
TUB3-100/25D50L	2563	1332	1,2811	50	17,06528	$\phi =$	17,06528	$\times \Delta T$	1,2811
TUB3-100/26D50L	2665	1385	1,2811	50	17,74789	$\phi =$	17,74789	$\times \Delta T$	1,2811
TUB3-100/27D50L	2768	1438	1,2811	50	18,43050	$\phi =$	18,43050	$\times \Delta T$	1,2811
TUB3-100/28D50L	2870	1492	1,2811	50	19,11311	$\phi =$	19,11311	$\times \Delta T$	1,2811
TUB3-100/29D50L	2973	1545	1,2811	50	19,79572	$\phi =$	19,79572	$\times \Delta T$	1,2811
TUB3-100/30D50L	3075	1598	1,2811	50	20,47834	$\phi =$	20,47834	$\times \Delta T$	1,2811
TUB3-100/31D50L	3178	1651	1,2811	50	21,16095	$\phi =$	21,16095	$\times \Delta T$	1,2811
TUB3-120/02D50L	245	127	1,2828	50	1,61947	$\phi =$	1,61947	$\times \Delta T$	1,2828
TUB3-120/03D50L	367	191	1,2828	50	2,42920	$\phi =$	2,42920	$\times \Delta T$	1,2828
TUB3-120/04D50L	490	254	1,2828	50	3,23894	$\phi =$	3,23894	$\times \Delta T$	1,2828

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TUB3-120/05D50L	612	318	1,2828	50	4,04867	$\phi =$	4,04867	$\times \Delta T$	1,2828
TUB3-120/06D50L	734	381	1,2828	50	4,85841	$\phi =$	4,85841	$\times \Delta T$	1,2828
TUB3-120/07D50L	857	445	1,2828	50	5,66814	$\phi =$	5,66814	$\times \Delta T$	1,2828
TUB3-120/08D50L	979	508	1,2828	50	6,47788	$\phi =$	6,47788	$\times \Delta T$	1,2828
TUB3-120/09D50L	1102	572	1,2828	50	7,28761	$\phi =$	7,28761	$\times \Delta T$	1,2828
TUB3-120/10D50L	1224	636	1,2828	50	8,09735	$\phi =$	8,09735	$\times \Delta T$	1,2828
TUB3-120/11D50L	1346	699	1,2828	50	8,90708	$\phi =$	8,90708	$\times \Delta T$	1,2828
TUB3-120/12D50L	1469	763	1,2828	50	9,71682	$\phi =$	9,71682	$\times \Delta T$	1,2828
TUB3-120/13D50L	1591	826	1,2828	50	10,52655	$\phi =$	10,52655	$\times \Delta T$	1,2828
TUB3-120/14D50L	1714	890	1,2828	50	11,33628	$\phi =$	11,33628	$\times \Delta T$	1,2828
TUB3-120/15D50L	1836	953	1,2828	50	12,14602	$\phi =$	12,14602	$\times \Delta T$	1,2828
TUB3-120/16D50L	1958	1017	1,2828	50	12,95575	$\phi =$	12,95575	$\times \Delta T$	1,2828
TUB3-120/17D50L	2081	1081	1,2828	50	13,76549	$\phi =$	13,76549	$\times \Delta T$	1,2828
TUB3-120/18D50L	2203	1144	1,2828	50	14,57522	$\phi =$	14,57522	$\times \Delta T$	1,2828
TUB3-120/19D50L	2326	1208	1,2828	50	15,38496	$\phi =$	15,38496	$\times \Delta T$	1,2828
TUB3-120/20D50L	2448	1271	1,2828	50	16,19469	$\phi =$	16,19469	$\times \Delta T$	1,2828
TUB3-120/21D50L	2570	1335	1,2828	50	17,00443	$\phi =$	17,00443	$\times \Delta T$	1,2828
TUB3-120/22D50L	2693	1398	1,2828	50	17,81416	$\phi =$	17,81416	$\times \Delta T$	1,2828
TUB3-120/23D50L	2815	1462	1,2828	50	18,62390	$\phi =$	18,62390	$\times \Delta T$	1,2828
TUB3-120/24D50L	2938	1525	1,2828	50	19,43363	$\phi =$	19,43363	$\times \Delta T$	1,2828
TUB3-120/25D50L	3060	1589	1,2828	50	20,24336	$\phi =$	20,24336	$\times \Delta T$	1,2828
TUB3-120/26D50L	3182	1653	1,2828	50	21,05310	$\phi =$	21,05310	$\times \Delta T$	1,2828
TUB3-150/02D50L	305	158	1,2854	50	1,99730	$\phi =$	1,99730	$\times \Delta T$	1,2854
TUB3-150/03D50L	457	237	1,2854	50	2,99399	$\phi =$	2,99399	$\times \Delta T$	1,2854
TUB3-150/04D50L	610	316	1,2854	50	3,99199	$\phi =$	3,99199	$\times \Delta T$	1,2854
TUB3-150/05D50L	762	395	1,2854	50	4,98998	$\phi =$	4,98998	$\times \Delta T$	1,2854
TUB3-150/06D50L	914	474	1,2854	50	5,98798	$\phi =$	5,98798	$\times \Delta T$	1,2854
TUB3-150/07D50L	1067	553	1,2854	50	6,98597	$\phi =$	6,98597	$\times \Delta T$	1,2854
TUB3-150/08D50L	1219	632	1,2854	50	7,98397	$\phi =$	7,98397	$\times \Delta T$	1,2854
TUB3-150/09D50L	1372	711	1,2854	50	8,98197	$\phi =$	8,98197	$\times \Delta T$	1,2854
TUB3-150/10D50L	1524	790	1,2854	50	9,97996	$\phi =$	9,97996	$\times \Delta T$	1,2854
TUB3-150/11D50L	1676	869	1,2854	50	10,97796	$\phi =$	10,97796	$\times \Delta T$	1,2854
TUB3-150/12D50L	1829	948	1,2854	50	11,97596	$\phi =$	11,97596	$\times \Delta T$	1,2854
TUB3-150/13D50L	1981	1027	1,2854	50	12,97395	$\phi =$	12,97395	$\times \Delta T$	1,2854
TUB3-150/14D50L	2134	1106	1,2854	50	13,97195	$\phi =$	13,97195	$\times \Delta T$	1,2854
TUB3-150/15D50L	2286	1186	1,2854	50	14,96994	$\phi =$	14,96994	$\times \Delta T$	1,2854
TUB3-150/16D50L	2438	1265	1,2854	50	15,96794	$\phi =$	15,96794	$\times \Delta T$	1,2854
TUB3-150/17D50L	2591	1344	1,2854	50	16,96594	$\phi =$	16,96594	$\times \Delta T$	1,2854
TUB3-150/18D50L	2743	1423	1,2854	50	17,96393	$\phi =$	17,96393	$\times \Delta T$	1,2854
TUB3-150/19D50L	2896	1502	1,2854	50	18,96193	$\phi =$	18,96193	$\times \Delta T$	1,2854
TUB3-150/20D50L	3048	1581	1,2854	50	19,95993	$\phi =$	19,95993	$\times \Delta T$	1,2854
TUB3-150/21D50L	3200	1660	1,2854	50	20,95792	$\phi =$	20,95792	$\times \Delta T$	1,2854
TUB3-150/22D50L	3353	1739	1,2854	50	21,95592	$\phi =$	21,95592	$\times \Delta T$	1,2854
TUB3-180/02D50L	365	189	1,2876	50	2,37233	$\phi =$	2,37233	$\times \Delta T$	1,2876
TUB3-180/03D50L	548	284	1,2876	50	3,55849	$\phi =$	3,55849	$\times \Delta T$	1,2876
TUB3-180/04D50L	731	379	1,2876	50	4,74466	$\phi =$	4,74466	$\times \Delta T$	1,2876
TUB3-180/05D50L	914	473	1,2876	50	5,93082	$\phi =$	5,93082	$\times \Delta T$	1,2876
TUB3-180/06D50L	1096	568	1,2876	50	7,11698	$\phi =$	7,11698	$\times \Delta T$	1,2876
TUB3-180/07D50L	1279	662	1,2876	50	8,30315	$\phi =$	8,30315	$\times \Delta T$	1,2876
TUB3-180/08D50L	1462	757	1,2876	50	9,48931	$\phi =$	9,48931	$\times \Delta T$	1,2876
TUB3-180/09D50L	1644	852	1,2876	50	10,67548	$\phi =$	10,67548	$\times \Delta T$	1,2876
TUB3-180/10D50L	1827	946	1,2876	50	11,86164	$\phi =$	11,86164	$\times \Delta T$	1,2876
TUB3-180/11D50L	2010	1041	1,2876	50	13,04780	$\phi =$	13,04780	$\times \Delta T$	1,2876
TUB3-180/12D50L	2192	1136	1,2876	50	14,23397	$\phi =$	14,23397	$\times \Delta T$	1,2876
TUB3-180/13D50L	2375	1230	1,2876	50	15,42013	$\phi =$	15,42013	$\times \Delta T$	1,2876
TUB3-180/14D50L	2558	1325	1,2876	50	16,60630	$\phi =$	16,60630	$\times \Delta T$	1,2876
TUB3-180/15D50L	2741	1420	1,2876	50	17,79246	$\phi =$	17,79246	$\times \Delta T$	1,2876
TUB3-180/16D50L	2923	1514	1,2876	50	18,97863	$\phi =$	18,97863	$\times \Delta T$	1,2876
TUB3-180/17D50L	3106	1609	1,2876	50	20,16479	$\phi =$	20,16479	$\times \Delta T$	1,2876
TUB3-180/18D50L	3289	1704	1,2876	50	21,35095	$\phi =$	21,35095	$\times \Delta T$	1,2876
TUB3-180/19D50L	3471	1798	1,2876	50	22,53712	$\phi =$	22,53712	$\times \Delta T$	1,2876
TUB3-180/20D50L	3654	1893	1,2876	50	23,72328	$\phi =$	23,72328	$\times \Delta T$	1,2876
TUB3-180/21D50L	3837	1987	1,2876	50	24,90945	$\phi =$	24,90945	$\times \Delta T$	1,2876
TUB3-180/22D50L	4019	2082	1,2876	50	26,09561	$\phi =$	26,09561	$\times \Delta T$	1,2876
TUB3-180/23D50L	4202	2177	1,2876	50	27,28177	$\phi =$	27,28177	$\times \Delta T$	1,2876

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TUB3-200/02D50L	406	210	1,2889	50	2,62255	$\phi =$	2,62255	x $\Delta T$	1,2889
TUB3-200/03D50L	609	315	1,2889	50	3,93382	$\phi =$	3,93382	x $\Delta T$	1,2889
TUB3-200/04D50L	812	420	1,2889	50	5,24510	$\phi =$	5,24510	x $\Delta T$	1,2889
TUB3-200/05D50L	1015	525	1,2889	50	6,55637	$\phi =$	6,55637	x $\Delta T$	1,2889
TUB3-200/06D50L	1218	631	1,2889	50	7,86765	$\phi =$	7,86765	x $\Delta T$	1,2889
TUB3-200/07D50L	1421	736	1,2889	50	9,17892	$\phi =$	9,17892	x $\Delta T$	1,2889
TUB3-200/08D50L	1624	841	1,2889	50	10,49020	$\phi =$	10,49020	x $\Delta T$	1,2889
TUB3-200/09D50L	1827	946	1,2889	50	11,80147	$\phi =$	11,80147	x $\Delta T$	1,2889
TUB3-200/10D50L	2030	1051	1,2889	50	13,11274	$\phi =$	13,11274	x $\Delta T$	1,2889
TUB3-200/11D50L	2233	1156	1,2889	50	14,42402	$\phi =$	14,42402	x $\Delta T$	1,2889
TUB3-200/12D50L	2436	1261	1,2889	50	15,73529	$\phi =$	15,73529	x $\Delta T$	1,2889
TUB3-200/13D50L	2639	1366	1,2889	50	17,04657	$\phi =$	17,04657	x $\Delta T$	1,2889
TUB3-200/14D50L	2842	1471	1,2889	50	18,35784	$\phi =$	18,35784	x $\Delta T$	1,2889
TUB3-200/15D50L	3045	1576	1,2889	50	19,66912	$\phi =$	19,66912	x $\Delta T$	1,2889
TUB3-200/16D50L	3248	1681	1,2889	50	20,98039	$\phi =$	20,98039	x $\Delta T$	1,2889
TUB3-200/17D50L	3451	1787	1,2889	50	22,29167	$\phi =$	22,29167	x $\Delta T$	1,2889
TUB3-200/18D50L	3654	1892	1,2889	50	23,60294	$\phi =$	23,60294	x $\Delta T$	1,2889
TUB3-200/19D50L	3857	1997	1,2889	50	24,91421	$\phi =$	24,91421	x $\Delta T$	1,2889
TUB3-200/20D50L	4060	2102	1,2889	50	26,22549	$\phi =$	26,22549	x $\Delta T$	1,2889
TUB3-200/21D50L	4263	2207	1,2889	50	27,53676	$\phi =$	27,53676	x $\Delta T$	1,2889

## W imieniu producenta podpisać:

(Signed for and on behalf of the manufacturer by:)

Z-ca Prezesa ds. realizacji

Bartosz Ścierzyński

Nowa Wieś 03.03.2023

*Bartosz Ścierzyński*  
*Bartu Ścierzyński*  
 Członek Zarządu

**INSTAL PROJEKT sp. z o.o.**(dawniej INSTAL-PROJEKT Gawłowski, Ścierzyński Sp. J.)  
ul. Jana Pawła II 12ANowa Wieś k/Włocławka, 87-853 Kruszyn  
NIP 888-10-04-722, BDO 000008268  
tel. 54 235 59 05.....  
(podpis)

(signature)